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SUMMER 1972

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The Beaver

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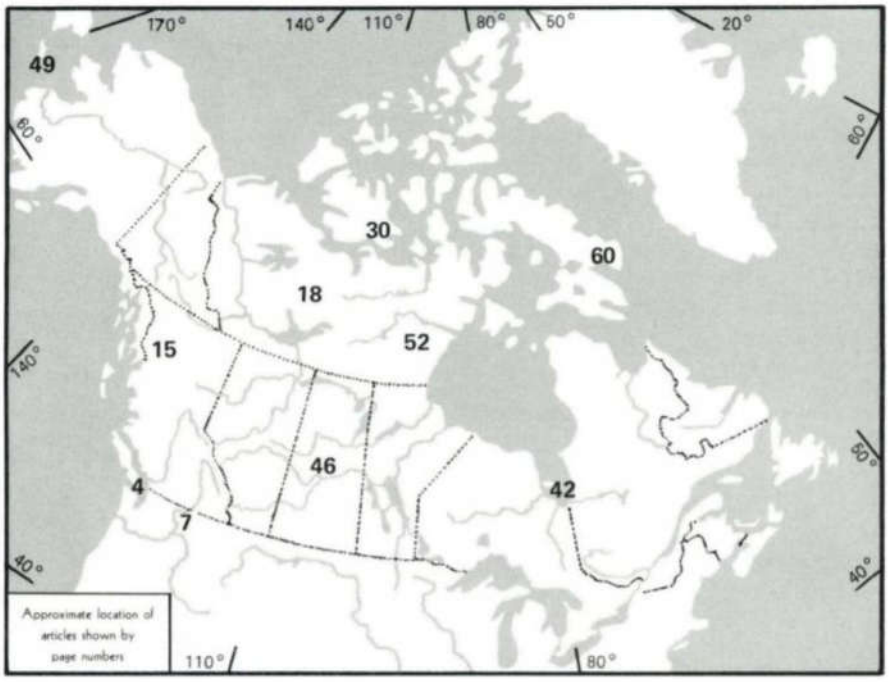

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The common camas (Camassia quamash) growing thickly near the sea and, opposite, in close-up.
B.C. Government photographs.

CAMAS—A SUMPTUOUS FEAST

BY DOUGLAS LEECHMAN

former chief anthropologist at the National Museum of Canada

THE CAMAS IS A LILY, the most important vegetable food known to the Indians of the Northwest, and one of the very few plants to have retained its native name. True enough, its name does appear in a variety of forms: camass, kamas, quamash, kamosh, gamass, and so on, depending on the nationality of the speaker, his ideas of spelling, and the acuteness of his ear. The French-Canadian voyageur, on being told it was camas, cried 'Ah, oui! Le camas, n'est-ce pas?' and for him it was lecamas from then on, a name which some perverted to likomas. These names all go back to the original, to be found in the language of the Nootka Indians, in which camas means sweet.

There are two species of camas in British Columbia: *Camassia quamash*, and the larger *Camassia leichtlinii*, both edible, and the differences between them need not concern us here for they are but slight. Back east, besides a few *quamash* on the prairies, there is another species, the wild hyacinth, or squill, *Camassia esculenta*, which, though its name indicates that it is edible, is no longer used as a food. All three species have been used as garden plants. The Indians used them all for food quite extensively in the old days.

The first white men to make any mention of camas appear to have been Lewis and Clark. On their famous overland journey, 1804-1806, they found themselves in western Idaho on the 20th of September 1805 and that evening they wrote in their journal: 'The Indians set before us a small piece of buffalo meat, some dried salmon, berries, and several kinds of roots. Among these last is one which is round and much like an onion in appearance and sweet to the taste. It is called Quamash and is eaten either in its natural state or boiled into a kind of soup or made into a cake called "pasheco". After our long abstinence this was a sumptuous feast.'

Camas is found all the way from northern British Columbia down to California, ranging eastwards to the mountains. It is abundant in Beacon Hill Park in Victoria and the general vicinity, and is in flower from early May to the middle of June. Vast beds of flowering camas occur, resembling lakes of an intense blue of almost indescribable beauty. The flowers fade soon after being

picked and do not always revive when brought indoors.

Camas beds were valuable family properties among the Indians, jealously guarded, and trespass on them could lead to serious quarrels, and even death. A most important factor in the terrible Nez Percé war between Chief Joseph and the United States in 1877 was the ploughing up of rich camas fields in the Wallowa valley in northeastern Oregon by the white settlers, which, to Chief Joseph, was an act of such blind folly and vandalism as to be beyond comprehension or belief.

Camas has a spike of blue flowers (occasionally white) which stands as much as twelve inches high, above its rather narrow long green leaves. Many blossoms, sometimes as many as thirty, may be found on one spike. The three petals and three sepals resemble each other so closely as to give the impression of six bright blue inch-long petals. The bulbs, found five or six inches below the surface, are about the size of a large hazel nut, some as large as walnuts; they are white in colour, and do indeed look something like onions. They are a favourite food of pocket gophers, one species of which was called the camas rat because they ate so many of the tasty bulbs.

Digging camas, a job which fell to the girls and women, was hard work. Nearly six inches down in soil which was apt to be hard at that time of the year, they were difficult to get out with the simple digging stick used for the purpose. These sticks were carefully made, usually of yew wood, about three feet long, slightly curved, with a sharp three-sided business end, and a D-shaped handle of horn or antler. The main shaft was nearly two inches thick, a strong and efficient tool. The women became very expert in this work, and a modern botanist or gardener armed with a shovel would not nearly be able to keep up with them.

The best time to harvest the bulbs is just before the flowers fade, for then they are at their largest. It is now, while the flowers are still visible that it is possible to be certain that the bulb is indeed the true camas and not the poison, or death camas *(Zygadenus venenosus)* which grows in the same places and at the same time and has very similar bulbs that are highly poisonous. The death camas has a creamy white flower, not unlike mignonette, and not at all like the blue camas, so the digging must be done before the distinguishing marks disappear.

Camas digging days were a fine old time for all. A whole village might move out to the camas meadows and camp there while the harvest was being gathered. Fires twinkled in the night and there was a great deal of feasting and visiting back and forth. Many an Indian lad now had a chance to compare the industry and conduct of the unmarried girls and court the one who took his fancy.

While the digging had been hard work, there was still the cooking to be undertaken before the camas could be used. True, some of the bulbs were eaten fresh as we do green onions, but this accounted for only a small portion of the crop. The bulbs would keep for some time, just as onions do, and there would generally be some to be found in camp in summer, but by far the major portion of the harvest was either boiled or roasted.

In the early days, before the Indians had access to vessels of pottery or metal, boiling had to be done in water-tight wooden boxes or closely woven baskets by the hot stone method. This consisted in heating stones in a fire and dropping them, with wooden tongs, into a container filled with water and the food to be cooked. As soon as a stone cooled it was lifted out and another hot one took its place. This was not as inefficient a process as one might imagine and at one time was almost world-wide in its distribution.

Various cooking recipes were known. The bulbs might be boiled and eaten as we do potatoes; they might be mashed up for a thick soup. They might be served with chunks of salmon in a stew; or they might be boiled down to a rich brown syrup like molasses, a dish much in favour for festive occasions.

Roasting accounted for most of the harvest and to do this a process known as pit-baking was used. It was a tricky operation and generally left to an experienced old woman, who would feel immensely important. After all, she might ruin hours of hard work by many women if she made a botch of it, for dozens of bushels would be roasted at a time. Every old woman had her own ideas of what was right, firmly convinced that old Mrs So-and-So, in spite of all her pretences, knew nothing about it. We all know the game! After all, who knows better than Grandma how to make proper tea biscuits or a good Irish stew?

Flower, fruit, and bulb of common camas from a drawing in the British Columbia Provincial Museum handbook 'The Lily Family'.

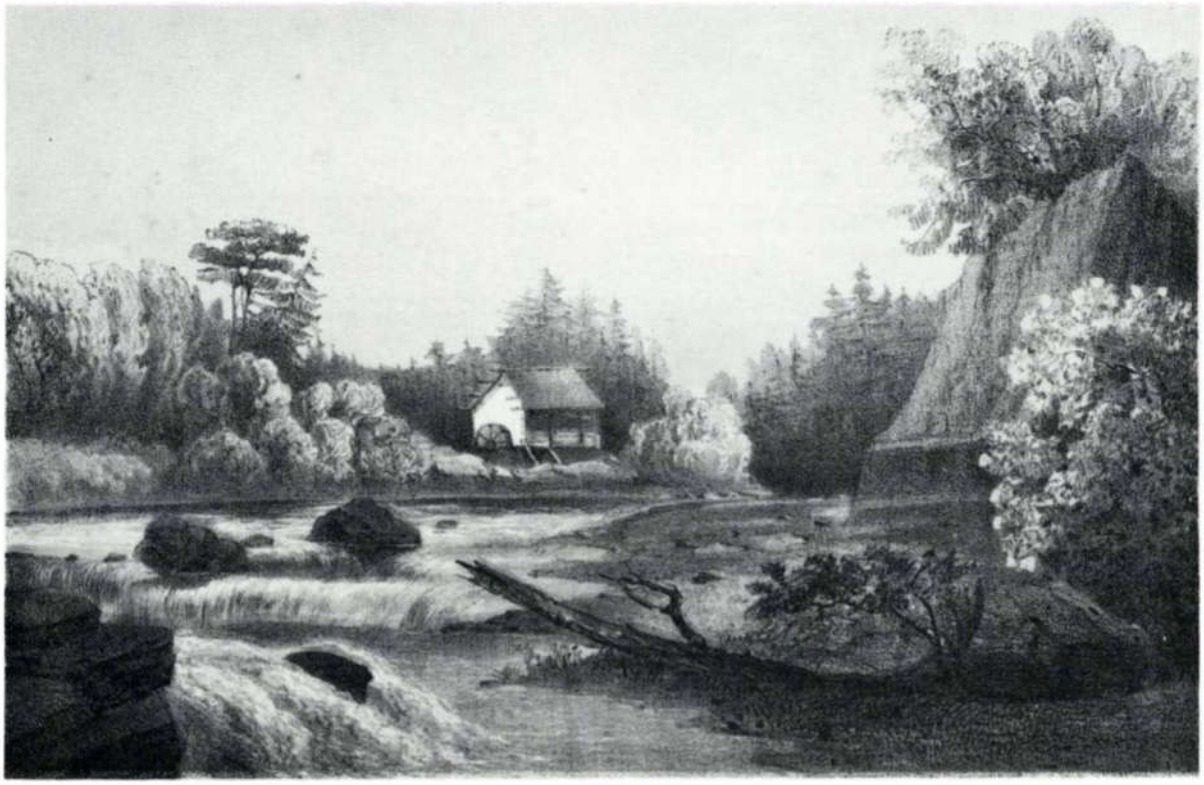
A young Nez Percé Indian girl, a direct descendant of Chief Joseph, told Leslie H. Haskin, author of *Wild Flowers of the Pacific Coast,* just how they went about it. First they dug a large shallow hole in the ground, lined the bottom and sides with stones and lit a big fire in the pit. When the stones were at their hottest, the burning coals were raked out and a layer of a special kind of grass which grows in the mountains was laid on the hot stones, then a layer of camas bulbs and more grass. This was then all covered over with hides and earth, and another fire built on top, which was kept going for two nights and a day during which time the pit must not be opened or even poked at. When at last they open the pit, the camas is found as a brown sticky goo, much relished by the Indians and whites alike. In later years, the Nez Percé took their camas with milk and sugar!

Once the camas had cooled, it was moulded into thin flat cakes which were fired in the sun and stored for use in the winter. When needed, a piece was broken off, soaked in water overnight, and was then ready for use. Sometimes a pale green, hair-like lichen, called Absalom's hair *(Alectoria jubata)* was added while the cakes were being shaped. This did not change the taste much, but reinforced the mass.

The first white settlers soon became aware of the virtues of camas and some families used a good deal of it, even though it had a reputation, perhaps undeserved, of bringing on stomach troubles if over-indulged in. Their usual way of using it was as a pie filling, mashing the bulbs up into a thick paste, and then proceeding as for pumpkin pie. It was a most welcome addition to what must often seem a monotonous bill of fare. Nearly everybody agreed that camas tasted fine. It was sweet and chestnutty, aromatic, and attractive in appearance. Only the U.S. Census Report of 1890 seems to have had a peeve against it: 'Camas has a sickening taste, and a blackish appearance inside and out. It is liked by Indians and will fatten hogs, making very fine flavored meats, but it is not palatable to a white man'. Which bears out the opinion of George Simpson who, fifty years earlier in the Fort Colvile area, after describing the digging and cooking commented 'After all this preparation, the kammas is but a poor and nauseous food'.

Palatable or not, it could sustain life when all else failed. David Douglas mentioned that when he rode from Kettle Falls to Spokane in May 1826 he found there that the family of Jaco Finlay had been living for six weeks on camas and lichen.

Inland tribes who had no camas traded for it eagerly and in large quantities, offering whatever products they had which were acceptable such as hides, red ochre, and jade adze blades in exchange. ◆



The Hudson's Bay grist mill at Fort Colvile, c. 1853.

Drawn by J. M. Stanley and published in Governor Stevens' report.

EXILE IN THE WILDERNESS

Archibald McDonald's ten years at Fort Colvile

BY JEAN MURRAY COLE

TO THE WEARY TRAVELLER it must have seemed like a mirage. All agreed that it was incredibly beautiful. Fur traders, missionaries, explorers, botanists: after weeks, sometimes months, of journeying in the wilderness, all reined up at the brow of the high hill overlooking Fort Colvile and exclaimed in wonderment at the sight that met their eyes.

Nestled in the valley was the Colvile farm, neatly laid out on a peninsula wrapped in the curve of the winding Columbia River. Towering mountains encircled the plains. Fields of grain flourished in orderly patterns, surrounded by placidly grazing cattle.

'A place so famed as Colvile for its beautiful sceneries,' wrote Archibald McDonald, Chief Factor in charge of the Hudson's Bay Company fort in 1842, to his old friend Edward Ermatinger in Upper Canada, 'and as some say for its domestic comforts to a man in need, you may be sure was not a dead blank in their *Carte de Route*.' He was referring to the visit to the Columbia in the summer of 1841 of Commodore Charles Wilkes, U.S.N., and his 'countless numbers of Scientific men exploring the country far and wide' on behalf of the American government.

Lieutenant R. E. Johnson, who had command of the land party for the Wilkes Expedition, was only one of Colvile's many visitors to leave a description of this unexpected oasis of civilization in what McDonald himself referred to as 'an obscure hole west side the Rocky Mountains'.

'The whole of the northern posts depend upon Colvile for supplies and provisions,' reported Johnson, and he declared it 'superior, for the purposes of cultivation,

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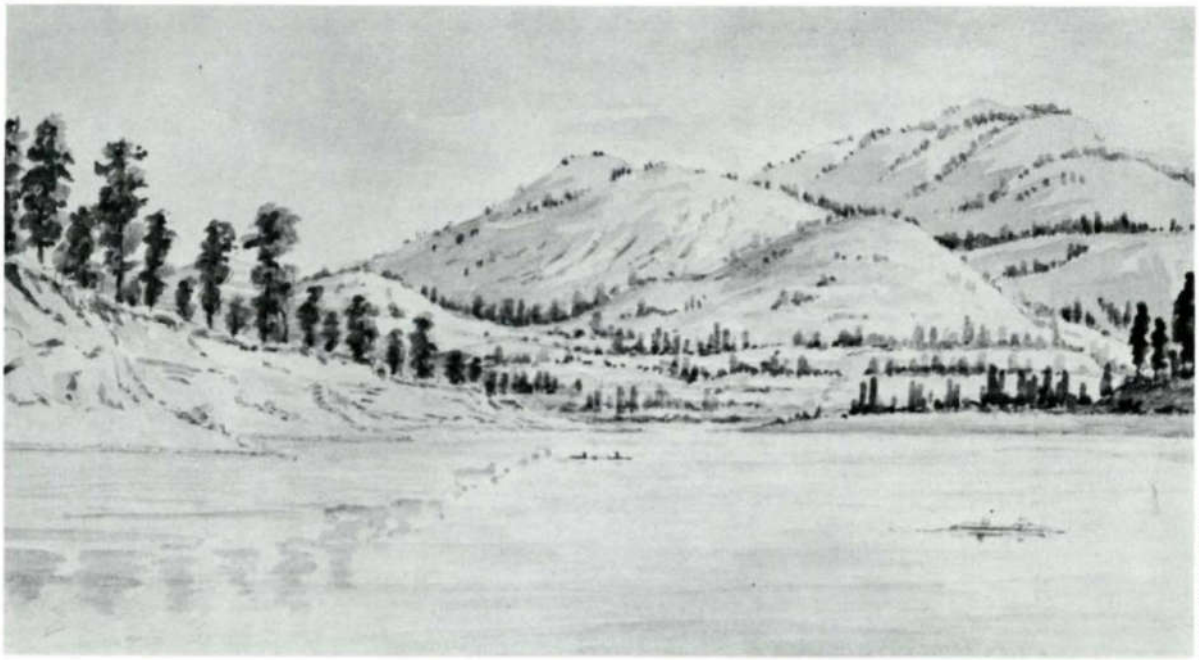
Mrs Cole, former journalist, has spent some years on research for a biography of her ancestor Archibald McDonald. *Acknowledgement is made to the Hudson's Bay Company for permission to publish extracts from its records and to Yale University Library for extracts from the Coe Collection, Walker-Whitman Papers.*



ROYAL ONTARIO MUSEUM

Paul Kane's watercolour 'On the Columbia River' shows a stretch north of Fort Colvile.

to any other spot on the upper waters of the Columbia.' The fort, 'like all the other posts of the Hudson's Bay Company is surrounded by high pickets, with bastions, forming a formidable defensive work against the Indians. Within the pickets all the dwellings and store-houses of the Company are enclosed.'

Defence was hardly needed with the friendly Colvile Indians. McDonald had had experience at Fort Langley (1828-33) where inter-tribal wars were commonplace and the formidable Yukultas (Euclataw) sent all the other Indian bands within miles of the Fraser River mouth fleeing to the Hudson's Bay Company fort for protection whenever they approached. At Colvile, he reported to the Governor and Council in April 1838: 'The Indians, throughout, if not valuable hunters, uniformly conduct themselves quietly & peaceably.'

In fact, Company officers and missionaries depended on the local Indians to help with their building projects, supply fish and game for food, and act as guides and messengers. Their little village of about 150 souls was located just above Kettle Falls, a mile or so below the fort. In the late summer when the salmon run began, the population swelled to nearly 1,000 as other tribes of 'Basket people' gathered to take in their winter's supply of fish, and dry it on the flat rocks at the lower end of the Falls.

When Rev. Elkanah Walker and Rev. Cushing Eells arrived at Colvile in October 1838, seeking a site for an American Board of Missions station in the neighbourhood, McDonald and the old Indian Chief Bighead had a private consultation before offering assistance and recommending the Tshimakain Plains, about 60 miles south of the fort, as a suitable location. Bighead became guide and mentor to the missionaries, and supervised the work of the Indians who helped to build the Mission. McDonald became a warm and valued friend, and the Colvile fort a haven.

When Walker first approached McDonald's home 'after being so long without seeing anything that indicated that the hand of industry had been there,' he wrote in his diary, that the sight of Colvile with 'fields well fenced, large stacks of all kinds of grain, cattle and hogs in large droves . . . was a feast to my eyes'.

Walker and Eells had brought their wives overland from New England, little prepared for the primitive life that awaited them west of the Mountains. When McDonald learnt of the arrival of the white women in March 1839 he promptly invited them to stay with his family at Colvile until their own homes were habitable. Mary Walker's first sight of Colvile is described in a letter home to her family in the east: 'Majestic craggy mountains of granite covered with yellow pine & at this season of the year capped with snow present themselves on either hand. The site of Colvile is pleasing & romantic . . . I never was in a place I liked the looks of better. The fort is large and more elegantly constructed than any I have before seen.'

The comforts of the 'elegant fort' pricked Mary's troublesome conscience, and as the time drew near for her to take up residence in her new Mission home she recorded in her diary that 'I have so many conveniences here that I fear I shall not like to go away & leave them'. McDonald had even provided her with a young Indian girl to take charge of her baby son, Cyrus, to free her to

explore the fort and its environs and to visit with her new friends.

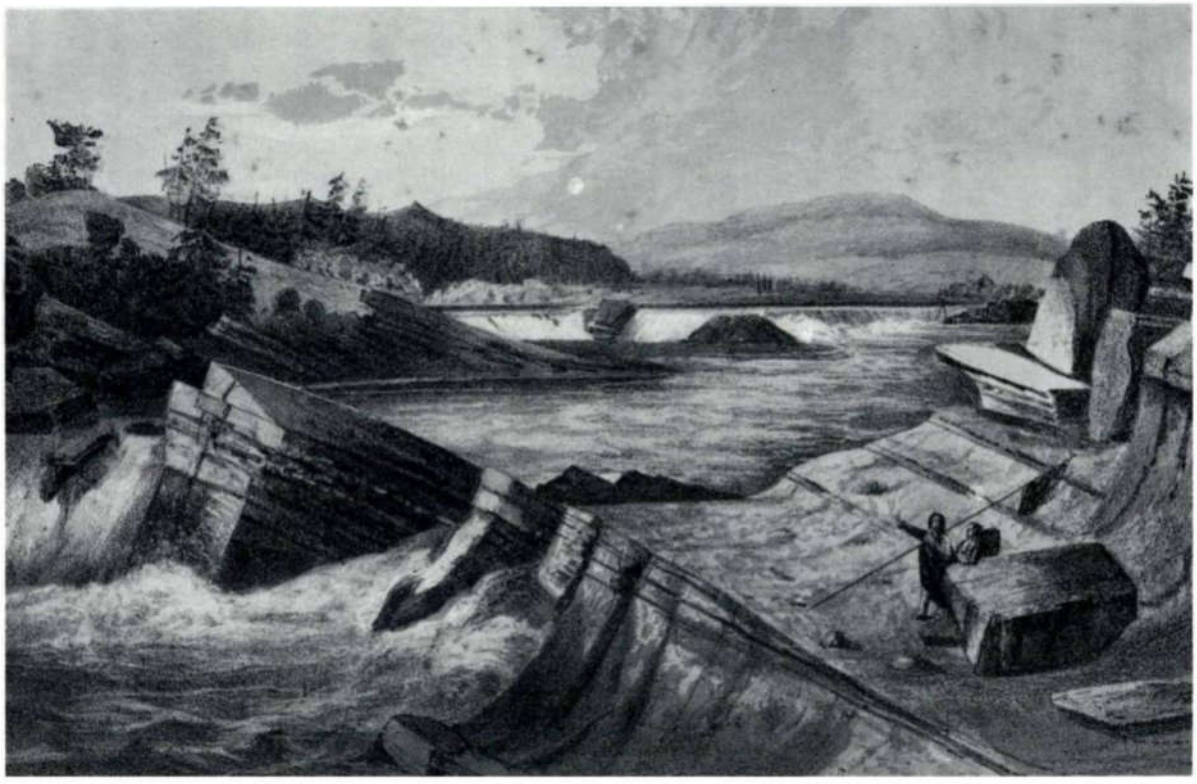
The decision to abandon old Spokane House and establish a new interior post at Kettle Falls was made by Governor George Simpson when he made his first inspection tour of the Columbia district in 1824-5. In 1821 he had sent Archibald McDonald across the mountains as accountant to look into the affairs of the North West Company posts in the Columbia that had been taken into the Hudson's Bay Company when the two companies merged. According to Frederick Merk *(Fur Trade and Empire)*, McDonald 'brought order into the business of the Oregon district'. But what he reported back to Simpson did not please the new Governor, who was determined to make the Columbia district independent of expensive supplies from Great Britain. The establishment of the farm at Colvile to provision the interior posts was part of the plan.

'We selected a beautiful point on the South side [of the Columbia River] about 3/4ths of a Mile above the Portage [Kettle Falls] where there is abundance of fine Timber and the situation elegible in every point of view,' wrote Simpson. 'An excellent farm can be made at this place where as much Grain and potatoes may be raised as would feed all the Natives of the Columbia and a sufficient number of Cattle and Hogs to supply His Majestys Navy with Beef and Pork . . . Lined out the Site of the Establish[t] 150 feet Square on a bank facing and commanding a view of the River and I have taken the liberty of naming it Fort Colvile.' (After Andrew Colvile, a member of the committee and later Governor of the Company.)

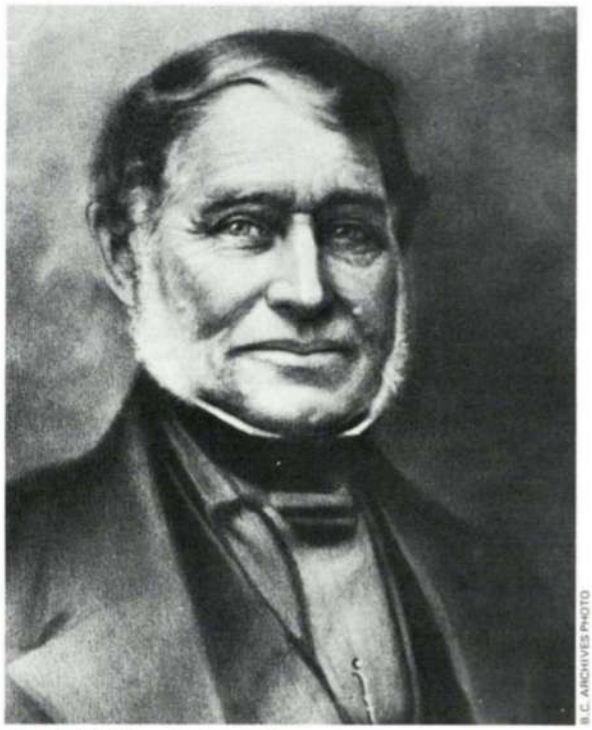
McDonald took charge of the fort briefly in the fall and winter of 1833-34 and then left for a year's furlough in Europe. In October 1835 he returned to the beautiful little valley with his family, and there he remained until he moved east in 1844 prior to his retirement, officially in 1848 but in effect earlier.

By 1837 he was bragging to Chief Trader John McLeod: 'The farm at present is on an extensive scale—what think you this winter of upwards of 5,000 bushels of grain!—namely 3,000 of wheat—1,000 of corn & more than 1,200 of other grain—your three calves are up to 55 and your three grunters would have swarmed the country if we did not make it a point to keep them down to 150.—With all this & its concomitant comforts I need not say that we live well.' (McLeod had been travelling with the eastbound Express in April 1826 when John Work delivered three pigs and three young cows from Vancouver to stock the farm at Colvile.)

From various accounts, the operation of the farm at Colvile, though smaller in scale, was a more orderly one



Kettle Falls where the Columbia makes two drops. From a drawing by J. M. Stanley.



B.C. ARCHIVES PHOTO

Archibald McDonald, from a daguerreotype possibly taken after he went east to retire.

PUBLIC ARCHIVES OF CANADA PA1110

Jane Klyne McDonald, a daguerreotype belonging to her grandson Arthur T. MacDonald.

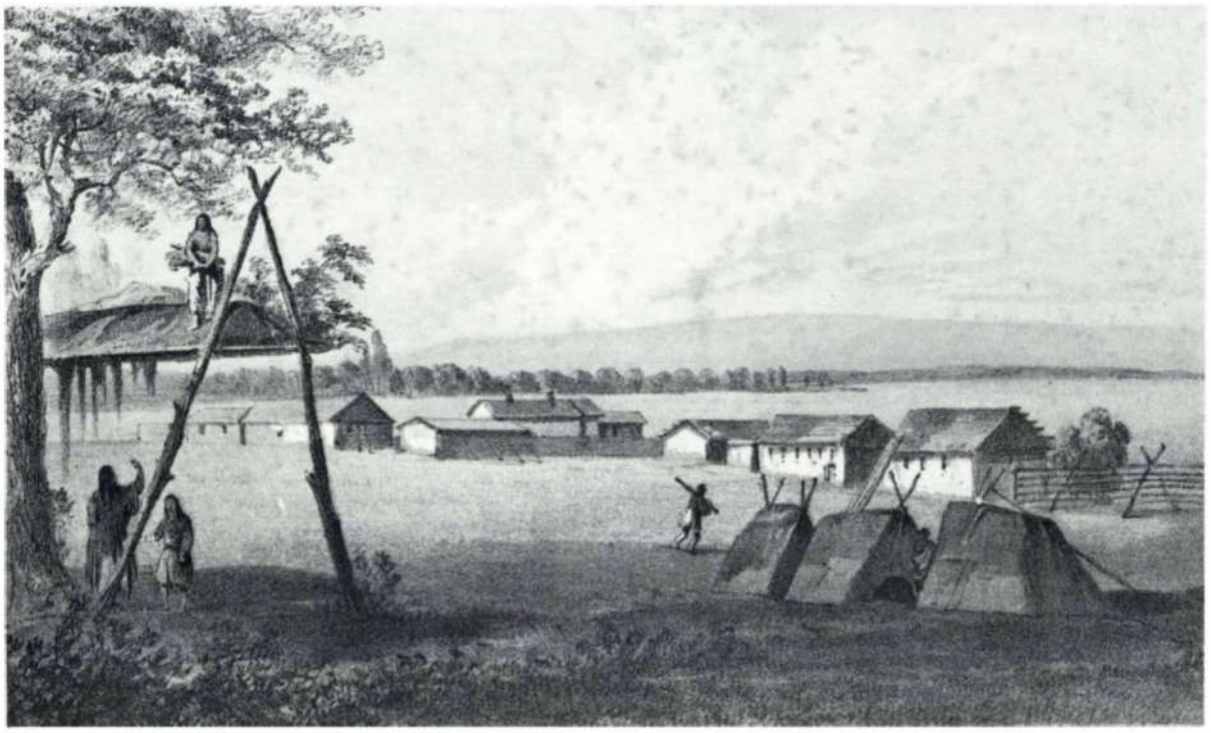
than that at the Company's headquarters at Fort Vancouver. Moreover Dr John McLoughlin, Chief Factor in charge of the Columbia District, was less interested in domestic comforts than his confrère at Colvile where McDonald's wife and children created a comfortable family life. There were of course 'melancholy events'. The Columbia River claimed its toll with tragic frequency and McDonald suffered a sad blow in 1842 when five of his Colvile men, including his own personal servant, drowned in the Dalles.

When George T. Allan, the accountant at Vancouver, arrived at Fort Colvile in April 1841 to prepare the Columbia District accounts for forwarding to headquarters he found a 'very neat and compact little establishment, and nothing I have yet seen in the Indian country can equal the beauty of its situation . . . when seated at table with Mr and Mrs McDonald and their family, one cannot help thinking himself once more at home enjoying a tête-à-tête in some domestic circle.'

That same year Fort Colvile was one of the stops on Sir George Simpson's globe-girdling tour, and on this return visit he found his prophecies of 1825 come true. 'On reaching the summit of a hill, we obtained a fine view of the pretty little valley in which Colvile is situated. In a prairie of three or four miles in length, with the Columbia River at one end, and a small lake in the centre, we descried the now novel scene of a large farm, barns, stables, &c., fields of wheat under the hand of the reaper, maize, potatoes, &c. &c., and herds of cattle grazing at will beyond the fences . . . we found about eighty men, whites and savages, all ready, in their Sunday's best, to receive us at the gate. Here, then, terminated a . . . journey of nearly two thousand miles on horseback, across plains, mountains, rivers, and forests. For six weeks and five days, we had been constantly riding.'

Simpson was expected at Colvile about mid-August and great were the preparations for his arrival. On the evening of the 17th word arrived that the Simpson party was nearby, and early next morning McDonald set off with several men on horseback bearing materials for a feast such as Simpson and his party had not seen since leaving Red River. 'Just fancy,' said the Governor in his Journal, 'at the base of the Rocky Mountains, a roasted turkey, a sucking pig, new bread, fresh butter, eggs, ale, &c.; and then contrast all these dainties with short allowance of pemmican and water. No wonder that some of our party ate more than was good for them.'

Jane Klyne McDonald by this time had built up a considerable reputation in the culinary department. Writing to Edward Ermatinger in January 1837, McDonald said, 'her Butter, Cheese, Ham & Bacon would shine in any ordinary market'. The dairy was no small part of the Colvile farm operation, particularly after the Company's 1839 agreement to supply all the Russian posts on the northwest coast. In April 1840



The Tshimakain Mission c. 1853 after it had been abandoned by the missionaries, drawn by Stanley.

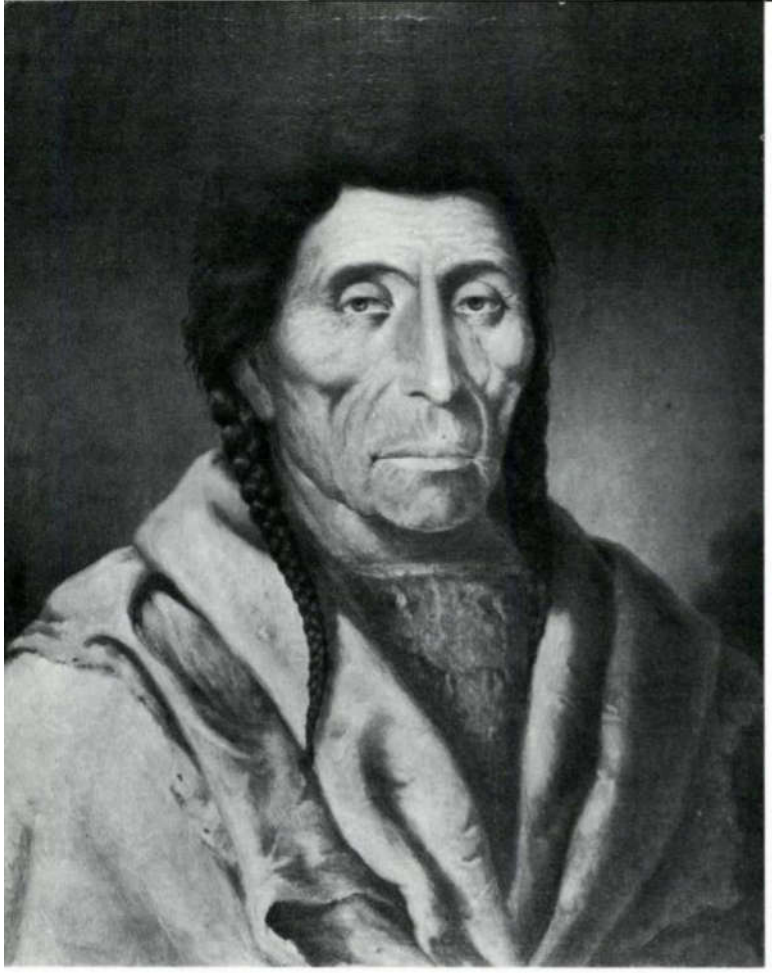
McDonald reported 'Our Dairyman . . . (old Joachim) is hard at work Scouring up his milk Tureens, in order to meet our Share of a very heavy demand in Butter & Cheese . . . for the fulfillment of our contract with the Russians to the tune of 200 firkins in the article Butter alone.'

Holiday menus are frequently mentioned in McDonald's correspondence, and other contemporary diarists refer to the bountiful table at Colvile. Francis Ermatinger, Edward's brother, was with the McDonalds for 'roast beef and plum pudding' on Christmas Day 1836, and they and 'about five and thirty men' did justice to the 'profusion of good things'. Ermatinger was at Colvile again in December the following year but as he had to leave before the holiday festivities, a dance was held at the fort while he was there, and he was sent off on the 20th with one boat and eight men and 'just as much of the good things of Colvile as would enable him . . . to pass a tolerably good Christmas . . . '.

Elkanah Walker's diary tells of a dinner of 'boiled buffalo meat, corned tongue, and some fowls, small but very good . . . sweetened with a dish of soup . . . crowned with a fine blueberry pie'. The bounty of Colvile frequently overflowed to the Mission station, where life was harder and less affluent. All of the missionaries sought solace at Colvile from time to time, but Walker in particular made frequent trips to the fort on one pretext or another. On one occasion his need for 'a change of air' was so great that he set off in a January storm to replenish his supply of chewing tobacco. From each visit he brought home gifts from the McDonald larder for the lonely women at the Mission. On Christmas Eve in 1839 he returned to Tshimakain from Colvile 'loaded with good things, pork, beef, buffalo tongues, cheese, etc.' and a few weeks later McDonald wrote to Walker that he was 'doubly glad' Walker got home in time for Christmas 'on account of the ladies, whom I should grieve to hear being without a good comfortable dinner on that occasion'.

A warm friendship grew up among these ill-assorted men and women who found themselves neighbours in the wilderness. Even the women, with their children, exchanged visits, making the overnight trip on horseback once or twice a year to enjoy the female companionship they craved. Mary Walker managed to overcome her disapproval of 'wine at the table' at the McDonalds, and developed a real affection for the whole family, and little Cyrus Walker and the McDonald boys became fast friends. The Columbia Maternal Association, the first women's organization west of the Rocky Mountains, which was organized by Mrs Marcus Whitman and the other missionary women in Oregon, numbered Jane McDonald among its earliest members.

Jane Klyne McDonald was part Cree and had grown up on fur-trading posts in the northwest, where her father Michel Klyne had served both the North West and



ROYAL ONTARIO MUSEUM

See-Pays, 'the Salmon Chief' or 'Chief of the Waters' at the Colvile Indian village, after a portrait by Paul Kane who visited the village in September 1847.

Hudson's Bay Companies, but she eagerly followed her husband's lead in imposing more civilized ways on the isolated fort at Colvile. McDonald himself taught her to read and write along with her older children and her stepson Ranald (son of McDonald's first wife Princess Raven, daughter of the old Chinook Chief Concomely). When the older boys were sent off to the Red River Academy in the '30s to further their education, she was proficient enough to take in hand the teaching of the younger children. This, along with the direction of the kitchen operations which frequently provided for a dozen or more guests along with the growing family, demonstrated Jane's intelligence and capability. Writing to Mary Walker in January 1840, she said, 'Although I have more attendants than you have, still, they all leave me quite enough to do'.

There was time left, however, for pleasure. In the quiet winter months one of their great delights was to hitch up one of the horses, bundle up all the children, and 'prance off' in the sleigh McDonald had made during his first year at Colvile.

When spring came and 'the deep snow soon melts, and all at once the whole country is ornamented by flowers', McDonald could turn to his interest in natural history, gathering botanical specimens to send to Sir William Jackson Hooker, keeper of the recently founded Kew Gardens, near London. On several occasions he packed skins of animals that were native to the Columbia River valley, rubbing them with arsenic to preserve them for the long trip around Cape Horn en route to the collection of the British Museum.

And then as summer wore on and the natives began to gather at the Falls to harvest the salmon that surged up the river in such abundance all the McDonalds would wander down to visit with their Indian friends and watch the huge baskets, teeming with hundreds of fish being hauled up to the river banks. '. . . the salmon commence their ascent about the 15th of July, and continue to arrive in almost incredible numbers for nearly two months; in fact there is one continuous body of them more resembling a flock of birds than anything else in their extraordinary leap up the falls, beginning at sunrise and ceasing at the approach of night.' So Paul Kane saw the salmon run at Kettle Falls when he passed that way in August 1847, two years after McDonald left Oregon.

Travelling botanists, knowing that McDonald was one of the few fur traders both knowledgeable and interested in their field, always made a point to stop at Colvile. Karl A. Geyer, a German naturalist, first arrived in late December, 1843, exhausted by want of food '. . . having been lost and wandering alone in the mountains and woods for thirteen days where snow was 2 and 3 feet deep . . .' He had stopped briefly at the Tshimakain Mission to 'enjoy the luxury again of sleeping under a roof, of which I had not had an opportunity for 8 long months in succession . . .' before going on to Colvile, where he apparently made his headquarters until the fall of 1844.

Geyer had crossed to Oregon 'under the wing of a Jesuit Mission,' McDonald wrote to Hooker, but it was 'evident he is but ill-provided for the work he has undertaken in this remote corner of the world . . . I fitted out my new Saxony friend with little trifles of my own to enable him to move about a little in this tempting season.' It was April and Geyer recorded the profusion of '*Clarkia pulchella* clothing the whole region far and wide in its purple'.

Although he sometimes complained about the numbers of comers and goers Fort Colvile had to provide for, particularly when one of them found the comforts irresistible and overstayed his welcome, McDonald was a warm-hearted, gregarious man who revelled in the variety of his guests. All else gave way to conversation when there were visitors at the fort. Finishing off a letter to Edward Ermatinger in April 1837, McDonald mentioned that he expected Chief Factor Duncan Finlayson and Chief Trader James Douglas from Vancouver, 'Parson' Henry Harmon Spalding '& Lady', from the Lapwai Mission, Fisher, his wife, sister-in-law and little ones from Alexandria, all within a few days. 'With such guests you know very little writing can be done, & you well

know my propensity for talking when I have about me anyone decent to talk with.'

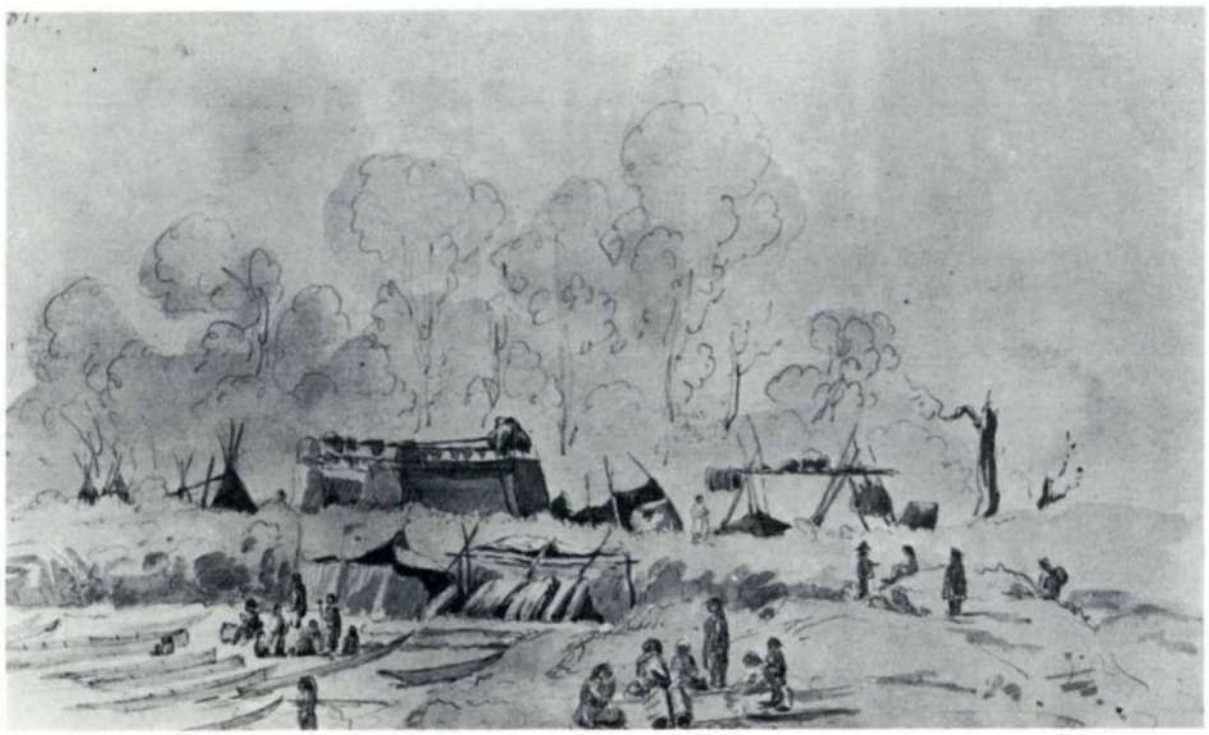
Frank Ermatinger was a favourite companion and on many cold January nights they sat about the fire in the big house, making elaborate plans for establishing themselves in Upper Canada, drawing blueprints of fields and houses, carried away by 'happy imagination'.

When left to himself, McDonald amused himself with letter-writing. His reputation as a correspondent is well known; in January 1831 he mentioned receiving thirty-two private letters in one packet from Hudson Bay, 'after a march of 11 weeks thro the different tribes between Vancouver and this' [Fort Langley]. A collection of more than three hundred McDonald letters now survives, testifying to the productivity of his pen. In April 1836 he wrote to James Hargrave: 'You may take this as a fair sample of my inclination . . . to be a constant correspondent & I dare say I shall always find some novelty to communicate—if not I can fabricate something that will not exactly be fiction.'

'Exile in the wilderness' he called himself, but McDonald worked hard to keep touch with affairs in the outside world. Edward Ermatinger and other friends sent valued bundles of newspapers: the *Patriot*, the *Albion*, the *Quebec Gazette* and the *Montreal Herald* were read and studied—and then re-read—before being passed on to Frank Ermatinger or John Work or Samuel Black.

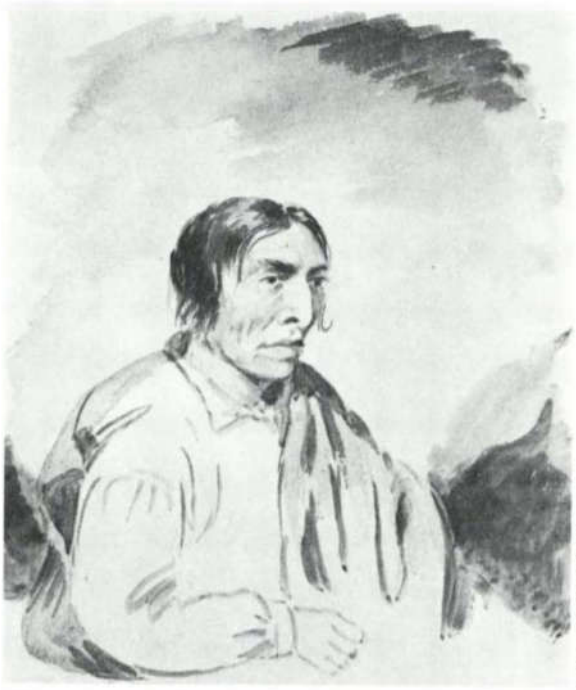
One winter's day in 1843, to test his knowledge of the current political scene in eastern Canada, 'I took my sheet of Cartridge paper, rule & compasses & in a trice sketched off what I call a very good picture, that would not disgrace the talents of the Honble. Surveyor General Parke himself, of every county from Essex to Grenville with their cities and privileged boroughs, & gave each one its member or members according to circumstances. Kent & one of the ridings of York I then found unoccupied, but since see them confirmed in favor of Wood & the defeated candidate at Terrebonne, the nominee of the celebrated Dr. Baldwin & the old McKenzie clique—My next effort in the fine Art was to colour out my new map with your municipal districts, seats of the county, the Wardens, clerks, counsellors & all with their respective salaries. —I then puzzled my brain to see the range of operation I could assign the prominent & seemingly indispensable characters called Executive counsellors & leading office holders. —With this my beautiful panorama I suppose I must now endeavour to tutor myself into the best knowledge I can of the workings of your new constitution & follow the progress for good or evil of your new men . . .'

Acknowledging that Ermatinger might smile at this 'Child's Horn Book of mine as a means of making myself a man of the world' McDonald went on to report that he had just ordered the printed report of the proceedings of



ROYAL ONTARIO MUSEUM

Kane sketched an Indian camp near the Columbia where salmon was being smoked.



ROYAL ONTARIO MUSEUM

Allam-mak-hum Stole-luch, 'Chief of the Earth' was another Colvile Indian sketched by Kane.

the first united parliament of the Canadas, no doubt to sit on his shelf beside the copy of Lord Durham's Report that he had received in 1840, Alexander Mackenzie's Journals, which he had carried with him since his arrival at Hudson Bay in September 1813, and the rest of his well thumbed library.

At one time McDonald came close to extending the cultural advantages of Colvile to include an organ. Music had long played an important part in fur trade life. Edward Ermatinger's flute and John Tod's violin brightened many an evening by the campfire as the men journeyed through lonely weeks in the wilderness. It was perhaps memories of these occasions that prompted McDonald to ask Donald Manson to purchase an instrument for him in London while he was there on leave. 'An organ was talked of in preference to a musical box,' McDonald wrote to Sir George Simpson, on 23 April 1842: 'I immediately drew out a Bill for £10—Everyone present pronounced anything of the kind for that money a paltry affair: I destroyed that Bill & made out one for £20.' Months later, Manson having left the order in the hands of 'Pelly, Simpson & Co.' at the London headquarters, McDonald was astonished to receive a Bill of Parcel, sent with the article to the Pacific Shores, cost and charges amounting to an additional 32 guineas! 'My musical box has . . . extended . . . most assuredly any sound contained within the compass of inches would have charmed my ear all the same.'

What became of the organ is not known, but apparently it never arrived at Colvile. McDonald wrote to Simpson in April 1844: 'The affair of the Organ we shall now drop. I am very fortunate in getting my money, cost, & charges back; & I wish I could with the same composure banish from my mind some of my other dealings with the same source whence that bright bargain was sent me.'

During the winter of 1844 illness plagued the Chief Factor and his wife, and in April McDonald, given leave of absence, wrote to George Simpson that he had made up his mind 'to recross the Mountains this fall'. For some time he had been concerned about his children, six of whom were with their parents at Colvile, two at the Red River Academy, and one at school in England, and he was anxious to gather his family together in more civilized country. 'My children, the greatest treasure I have, are now losing every day they remain in this blessed wilderness.'

In September they made the move, planning to spend the winter at Fort Edmonton and move on to Montreal in the spring. Another son, Benjamin, was born that November, and in May of 1845, just as they were about to resume the journey east, a tragic epidemic of scarlet fever struck Edmonton and carried away three of the little McDonald boys, three-year-old Joseph, and 'my dear little interesting twins'—age five-and-a-half. 'Our melancholy departure from Edmonton took place on the 5th of June . . . my poor wife borne down with sorrow & fatigue . . .'

The McDonalds settled in 1847 on a large farm they named Glencoe Cottage near St Andrews East (now St André, near Carillon) on the Ottawa River. McDonald died there on 15 January 1853 after a few days illness.

No trace remains of McDonald's little Eden at Colvile. By the Oregon Treaty of 1846 all lands below the 49th parallel were turned over to the United States. Although not actually abandoned by the Hudson's Bay Company until 1871, Colvile ceased to be of much significance and the old fort fell to ruin.

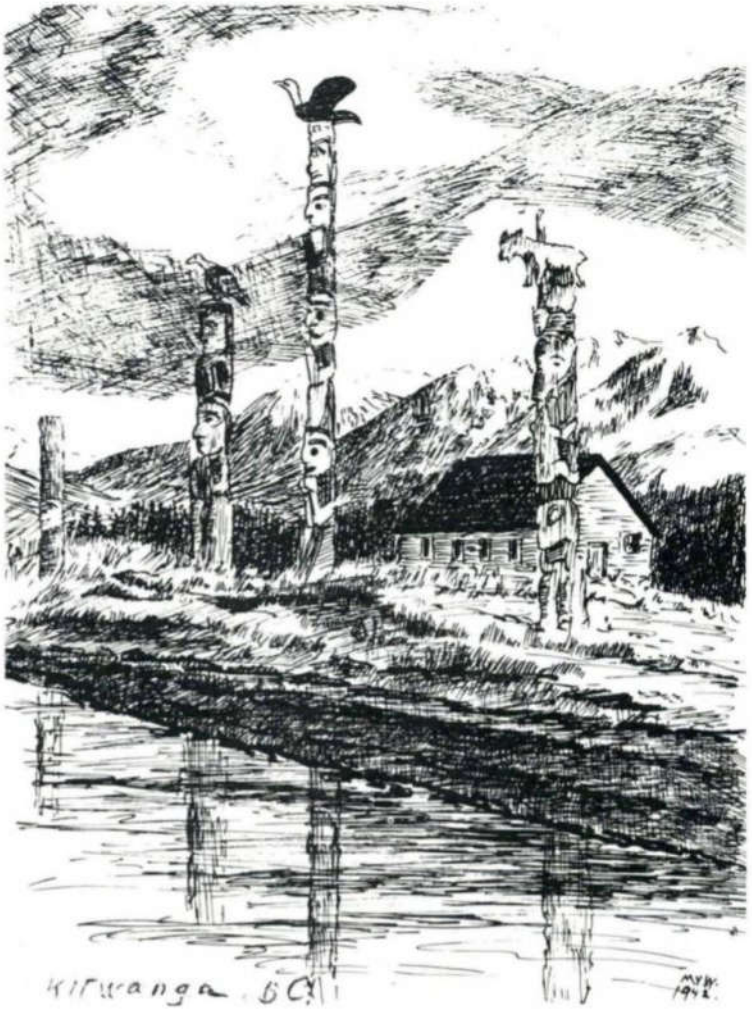
Today the beautiful little valley lies under the waters of Lake Roosevelt—flooded out of existence by the building of the Grand Coulee Dam in 1941. ◆

ROYAL ONTARIO MUSEUM

Kane's 'Spurred Rider and his Horse' might have been one of the travellers enjoyed by McDonald.

WEE-GAT
THE SPIRIT

A story from the Gitksan, a Tsimshian people of the Upper Skeena River, taken down by the late Marion Woodside Hanna who for many years in the first decades of this century lived in the Kitwanga and Hazelton country, with assistance in translation from Constance Cox who was fluent in the local Indian dialects. The sketch of Kitwanga in 1942 is by Marion Hanna's sister, Mavis W. Welch.



WEE-GAT WAS A SPIRIT who belonged to both the animal and the human world. He could cast a spell, and he was always hungry.

On this day he was travelling along the Skeena River and came through a clump of jack pine trees where grew a patch of kinnikinnick whose berries are eaten, and whose leaves can be smoked. He walked up to the berries and in a very coaxing voice said: 'Oh, you nice little things, you do remind me so of my uncle's tears when I was leaving him'. (Among these Indians an uncle always regrets the departure of a nephew more than does his father.) These berries had black stripes on them which reminded him of tears. 'Oh, do come close so I can pat you.' But they said; 'Oh no, no, Wee-Gat. We know you'. And they dodged away from his hand.

So poor Wee-Gat was left hungry, and went on towards the Skeena canyon. All at once he saw three bears up a tree, and at once said; 'Ah, here is some roast bear and a warm robe for me'. He always thought that whatever he saw was his – a great mistake in this world. So he began hopping around the tree saying; 'A nice bear skin I shall have, I'll lay the skins crossways and a fine robe it will make for a chief'.

Certain of having the bear skins for a robe, he tore off his crow skin and throwing it to the ground, said: 'There, whoever heard of a chief wearing a crow skin?'

But while he was chanting and hopping around the tree, down its trunk slid one bear and rushed into the woods. Each time a bear came down the tree, Wee-Gat would say; 'Oh well, one will do, one will make a chief's robe'. Finally when the last bear came down the tree and ran away, Wee-Gat sadly picked up his crow skin and pulled it round his shoulders as it was early spring and cold.

By this time he had grown very hungry, so he went down the Skeena canyon and sat on a rock.

Wee-Gat had power to talk with the animals and fishes, so as he sat on this rock he said: 'O great King of the Salmon, how I admire you. Jump out of the water and see if you can hit me on the chest'.

All at once a spring salmon said; 'Who is speaking to me? Oh, I see it is Chief Wee-Gat'. So the King of the

Salmon made a mighty leap and struck him over the heart knocking him senseless. Just as Wee-Gat came to, the first thing he saw was the salmon wriggling back into the water. Wee-Gat thought, this will never do, I must have some new plan. So he scooped a hole in the solid rock thinking to himself that when the fish hit him again, he would slap it into the rock. Then he called out; 'How well you did that, O Chief of the Salmon. Let me see if you can do it once again'.

Hereupon the salmon made another leap striking Wee-Gat a thunderous blow on the chest. But at that very moment, Wee-Gat knocked the salmon into the hole he had scooped in the rock. Delighted to see the King of the Salmon floundering about in this hole, Wee-Gat killed him and took him out to roast, in this manner.

First he made a hollow in the ground and lined it with stones, and made a fire in it. When the fire had burnt down to coals, he covered them with cedar bark. Then he placed the salmon on the cedar bark, covered the salmon with more cedar bark, and then covered all with spread earth.

But Wee-Gat could never stand prosperity. As soon as he had something it always turned his head. So at the thought of having roast salmon, he had to look around to find someone to hear his boasts. Seeing nothing but a huge stump, Wee-Gat, never at a loss for words, said; 'Who invited you to my dinner? Don't you know that I am about to eat a chief's dinner, whole roast salmon? Who invited you?' Of course the stump made no reply, as we might know. But that did not satisfy Wee-Gat who went over to hit the stump. When that was done he said; 'There now, I hope you never again try to attend a chief's dinner without an invitation'.

Now two jackdaws came hopping along, and Wee-Gat cried out; 'Away you slaves, bring me dishes to eat off'. The jackdaws flew away and brought back leaves in their bills for plates. Disgusted, Wee-Gat said; 'Who ever heard of a chief eating off leaves! With that he set out to find some bark plates for his roasting salmon which now had a delicious smell.

When he returned with his bark plates, he found to his great annoyance, that the stump had rolled right on top of his roasting salmon. 'Oh my beautiful brother' said Wee-Gat 'I am glad you have come up too, but you are just a little too close over our dinner. Just kindly move a little to one side.' But not an inch would the stump shift, nor a word reply. After some time the stump having burnt on one side, rolled off the oven. But all poor Wee-Gat could find in the oven he had made was a few burnt salmon bones.

The hollow he scooped out of the rock can easily be seen – just below the Skeena canyon.

Still hungry, Wee-Gat went towards a village on the coast. As he came near, he could hear loud laughing from boys at play. Throwing pieces of fat, the boys catching most pieces won the game. Wee-Gat came along and said; 'Why boys, I was a champion player myself once. Now let me join in'. Every time a piece of fat came his way he would swallow it, being very hungry. But the boys soon got onto this, and began to throw him lumps of white clay instead of fat, which he crammed into his mouth. But when Wee-Gat found how he had been fooled by the boys he sadly wandered away.

Outside a village he approached a small house. Turning himself into a small boy he knocked at the door, and heard an old voice call from inside; 'Who is it?' Wee-Gat answered; 'Oh, I am a poor little boy, and if you let me stay with you I'll bring you wood and water'.

'Come in then little boy, but I hope you have a small appetite, because my supply of fish is getting low.' At these words Wee-Gat's heart sank, but he promised to eat but very little. Then the old granny let him in to sit by the fire while she cooked him a little fish. The small portion she gave him had little effect on his hunger, but he watched the old woman from the corner of his eye. He took note of where she hid her salmon, thinking that when she went to sleep he would have a good feed. After she had fed him, she told him to get off to sleep. So Wee-Gat curled himself up and pretended to be asleep. When the old woman thought the boy was asleep, she rose, put on her medicine regalia, took her drum, and slipped outside. He watched her through a crack in the wall, as she began to tum tum on the drum, and dance around a pool. All at once the water began to quiver and dance in time with the drum.

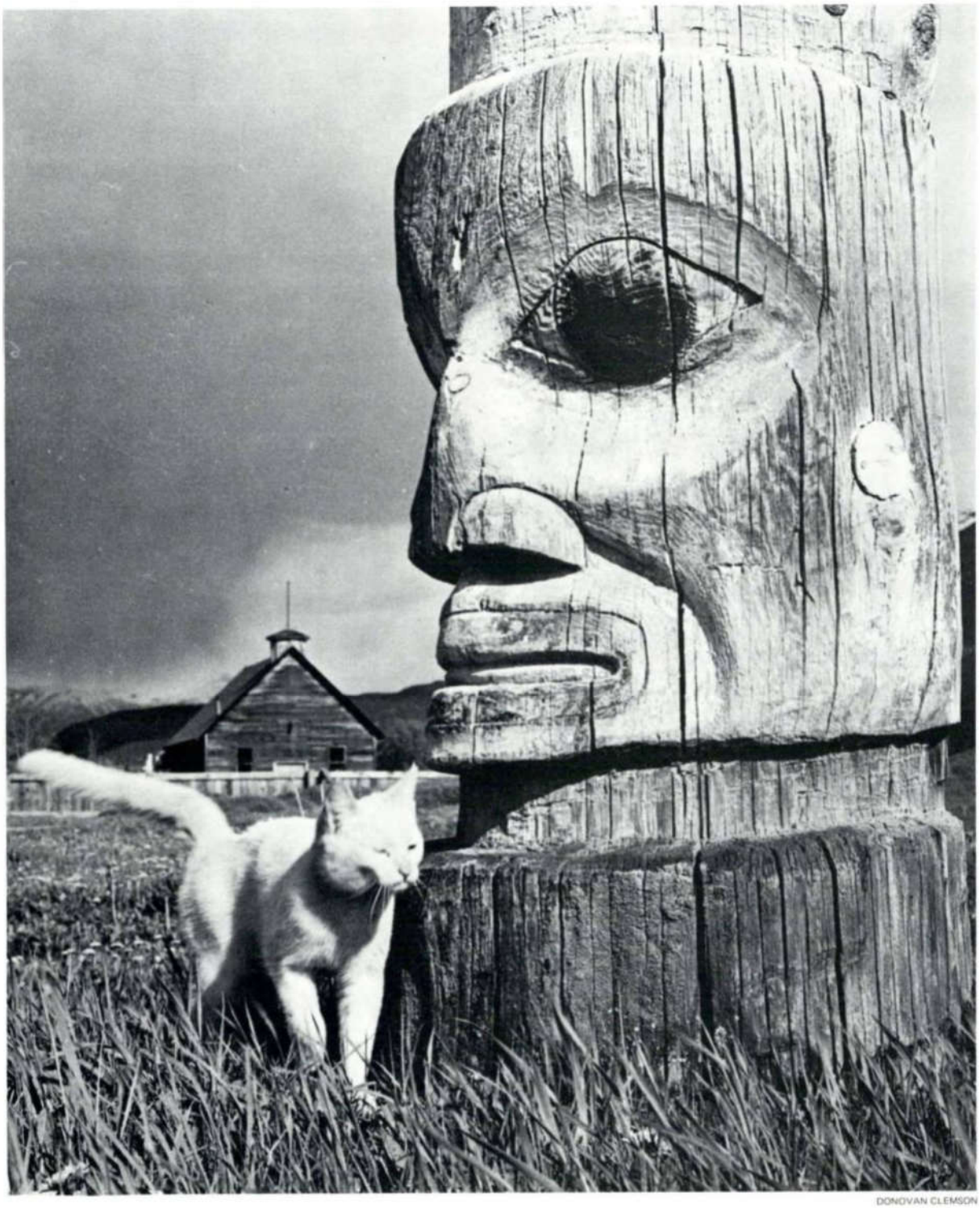
Suddenly, up from the depths of the pool, two large sticks of wild celery floated to the surface. When they were floating on the water, the old woman went around a second time. Wee-Gat noticed that she had made this second trip.

The old woman then ate the celery, while Wee-Gat was aching from hunger. After this was repeated two more times, the old woman started to the house, and Wee-Gat pretended to be sound asleep.

When the old woman was sound asleep, Wee-Gat got up, dressed in the medicine regalia, took the drum and went to the pool. Dancing around the pool to the tum tum of the drum, he heard a tum tum in the pool, the water quivered, and up floated two large sticks of celery. Wee-Gat threw down the drum and made a grab at them, forgetting he had not made the second trip around the pool. When he went to eat them, he found them as hard as stone. Each time he forgot to make two trips around the pool, and at last no more came to the surface. Worried that the old woman would find he had robbed her pool, he wondered how he could hide his theft.

Trees in those days were straight without branches. So Wee-Gat broke off some small tree tops and threw them against the trees around the pool. At once all these trees had numerous branches hiding the pool which Wee-Gat had robbed.

Poor Wee-Gat, unfortunate, unlucky, dishonest and hungry, crept away through the dark Skeena valley. ◆



DONOVAN CLEMSON

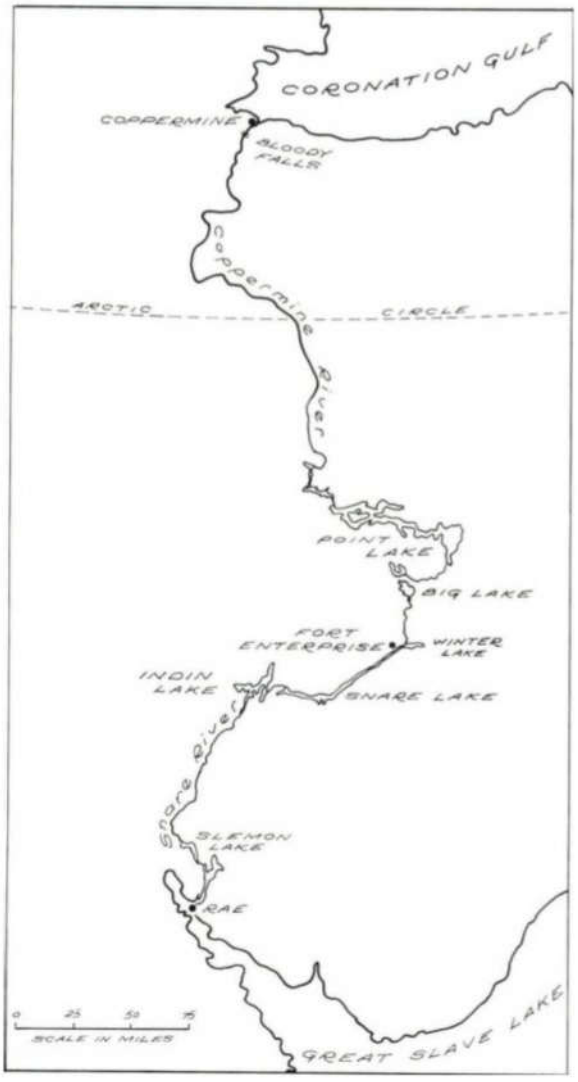
This interloping creature might be feeling the presence of Wee-Gat as it strolls by the brooding face of an old Kitwanga memorial pole that was restored in the twenties.

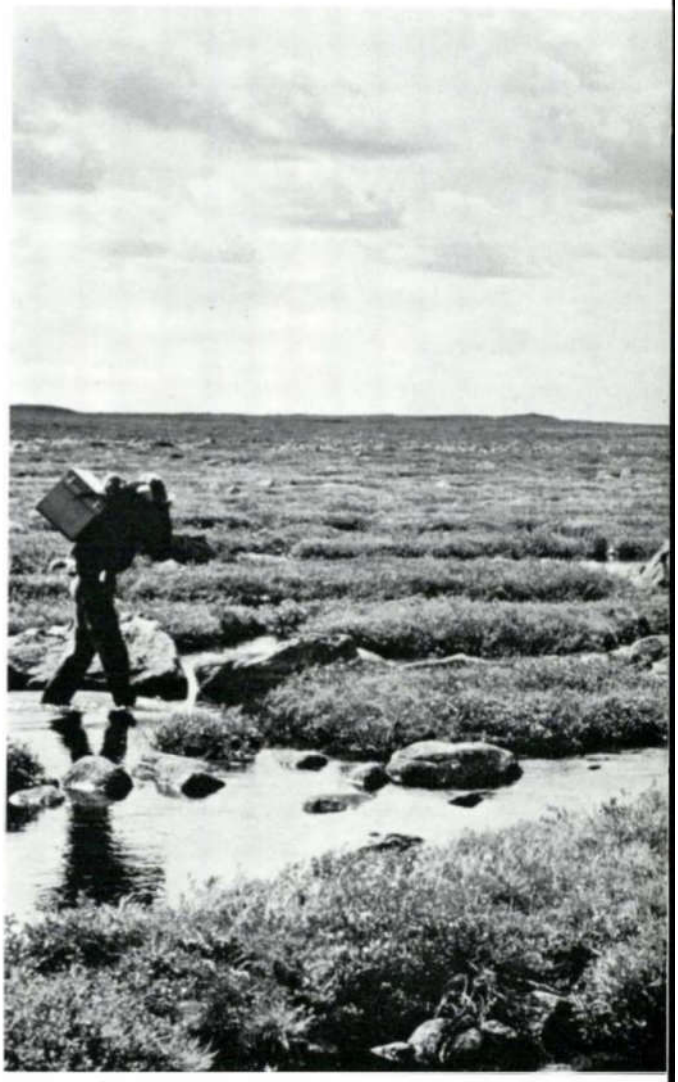
Moose shoots are gathered at Slemon Lake.

DOWN THE

DURING THE LATTER PART OF JUNE five of us in two aluminum canoes left Rae on Great Slave Lake to begin a journey to the mouth of the Coppermine River. It was some 750 miles by way of the Snare River, Winter and Point Lakes and down the Coppermine. We carried camping gear and around three hundred pounds of dried food, for no supplies would be flown in to us along the way.

We had paddled only a few yards when we became windbound on a rocky point not more than shouting distance from the tents of the Dogrib Indians. We were finally able to get off the point and out into the flow of the Snare River but the next day a light wet snow fell with wind strong enough to prevent our making any headway.





A portage through pothole country on the way to Big Lake.

COPPERMINE

Photos and text by **DAVID REPP**
The author is a professional photographer with an interest in conservation and wilderness life.

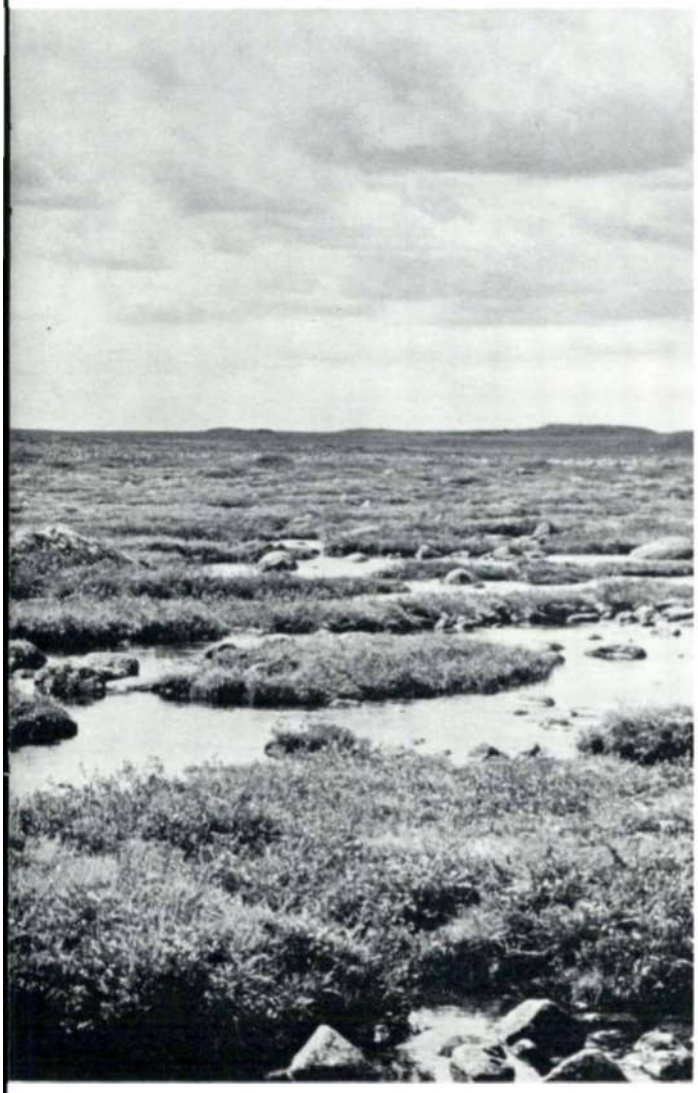
Windbound on Slemon Lake, we donned rainsuits and mosquito headnets and pulled 'moose shoots' from the water. We boiled these plants to supplement our food rations.

After the first week on the Snare River the weather was pleasant and the lake trout abundant. Head nets were a necessity during the day and no matter how long or hot the portage, our wool shirts were buttoned tight at the wrists and neck to keep out the black flies.

As we approached Indin Lake, pushing up the Snare became slow going. The water was too swift to paddle against and the banks were frequently too steep for a good footing. The Snare doubles back on itself as it leaves Snare Lake so we decided to cut the loop off by a portage through the bush.

At the end of the first day of tramping through spruce thickets, creek bogs, deadfalls and clouds of mosquitoes and black flies, the conversation became repetitive. 'If we had it to do over again, we'd go through that chain of lakes. The Indians surely don't go this way.' We set up the tent near a pothole and threw wet wood on the fire so we could stand in the protective smoke. The next morning we shouldered packs and canoes again and began walking with the hope of getting to Snare Lake by evening. Our last portage was heralded by the call of a loon. We made camp on a small island in the midst of a flock of irate nesting arctic terns.

After paddling and sailing through Snare and Roundrock Lakes where we could literally see the tree line disappearing, we began a trek through the tundra.

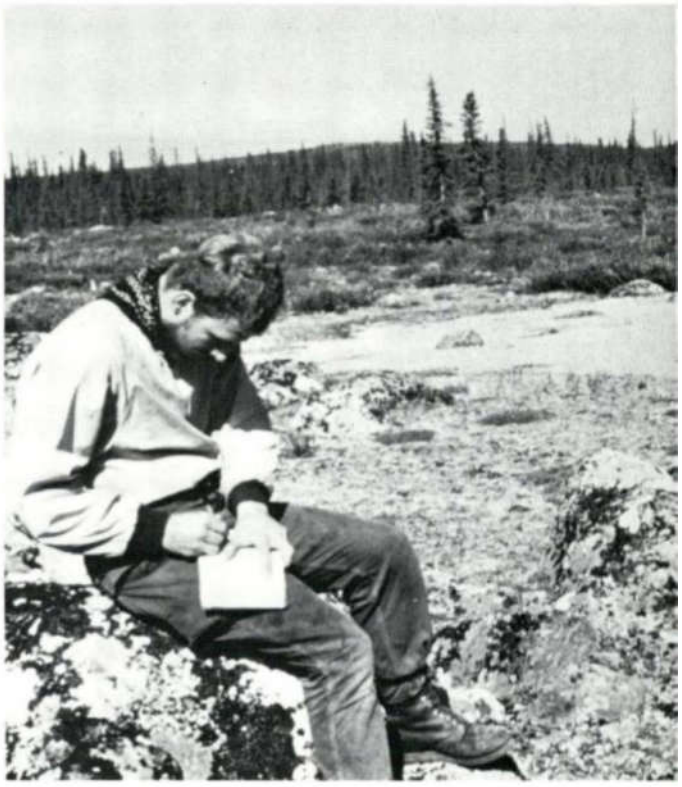


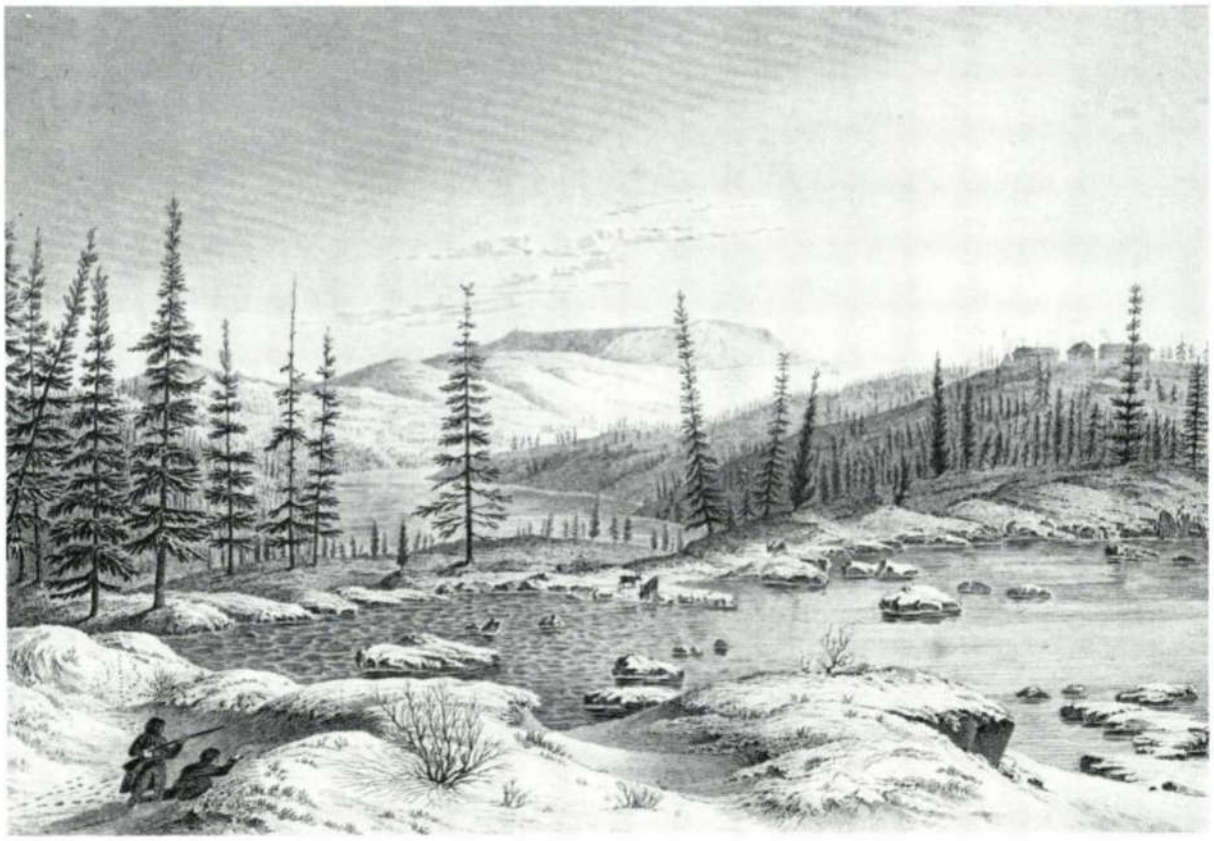
Making camp.

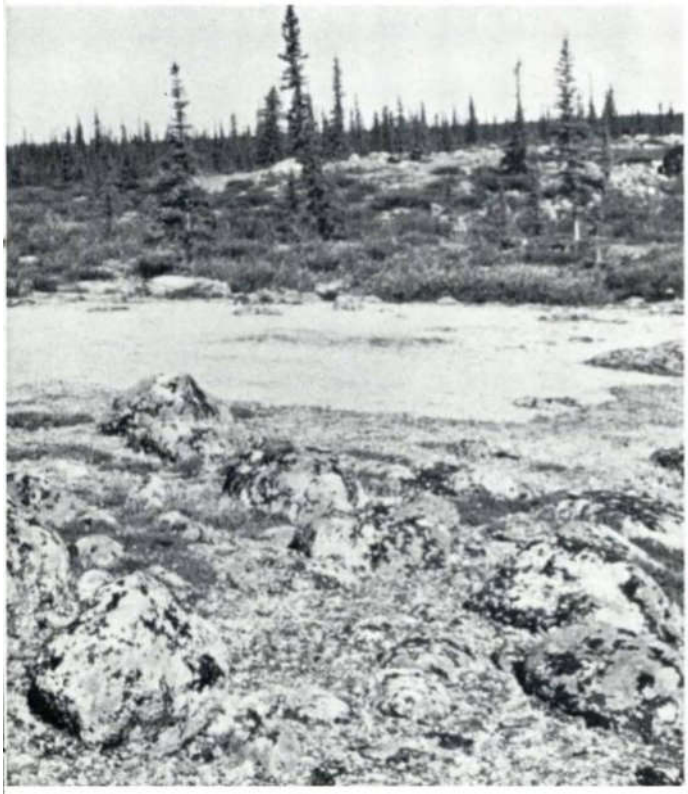
We stopped at the site of Fort Enterprise, Sir John Franklin's winter house built in the fall of 1820 and occupied by him and his men for ten months on their way to the Arctic Ocean. All that was left of the fort was a rectangle of colour different from the surrounding caribou moss, that showed the size of the original building.

When we left the headwaters of the Snare and headed straight north for Big Lake, portaging seemed less difficult. We paused on top of a hill a couple of miles from Big Lake and talked for a while about whether or not it was covered with ice. Bush pilots in Yellowknife had assured us that all the lakes on our route were clear so we hoped that what we saw was a mirage. We paddled out of the small bay where we had camped and started across Big Lake only to find it more than half covered with ice – thick enough to make paddling through out of the question. We settled down to wait, caught a supply of lake trout and packed the fillets in ice. After three days the rain had melted most of the ice and we were able to paddle across.

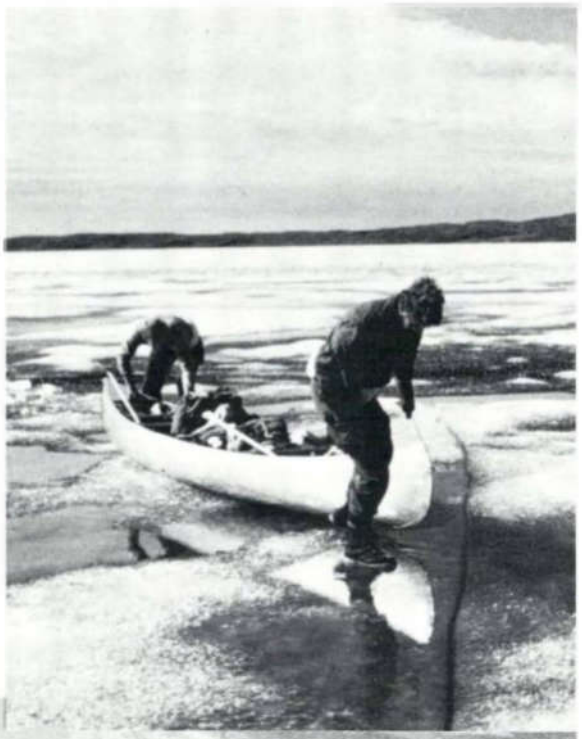
On 13 July we portaged into Point Lake and in a steady downpour, made camp in a clump of spruce trees. The next morning after a breakfast of fried and boiled fish, hot cocoa and oatmeal, we went scouting. There was only one word for what we saw of Point Lake. Ice.



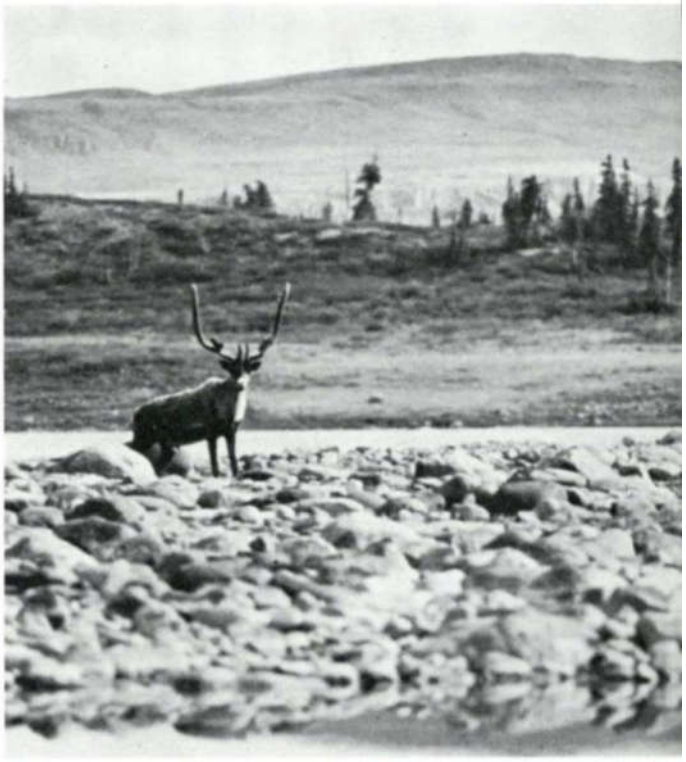




All that remained of Franklin's Fort Enterprise (sketch lower left by George Back) was a rectangle of light-coloured vegetation. Below, canoes are dragged across the ice on Point Lake, in the manner of the Franklin expedition that crossed the lake on their way to the Polar Sea in June 1821.



GEORGE BACK



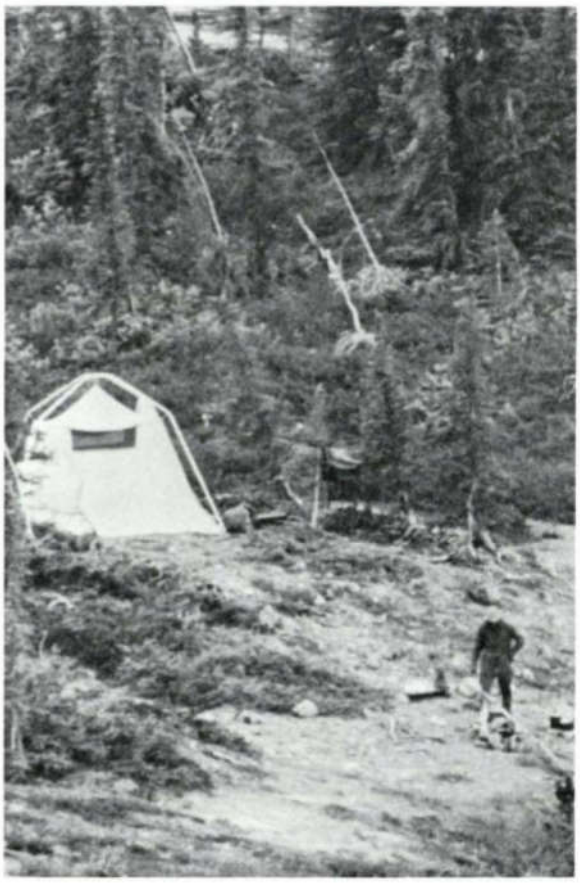
A robin plucked from the rapids and a caribou on a rocky island in the Coppermine River. At the far right are lake trout which the party used to supplement their supply of dried foods. At lower right is 'Rocky Defile' on the Coppermine.

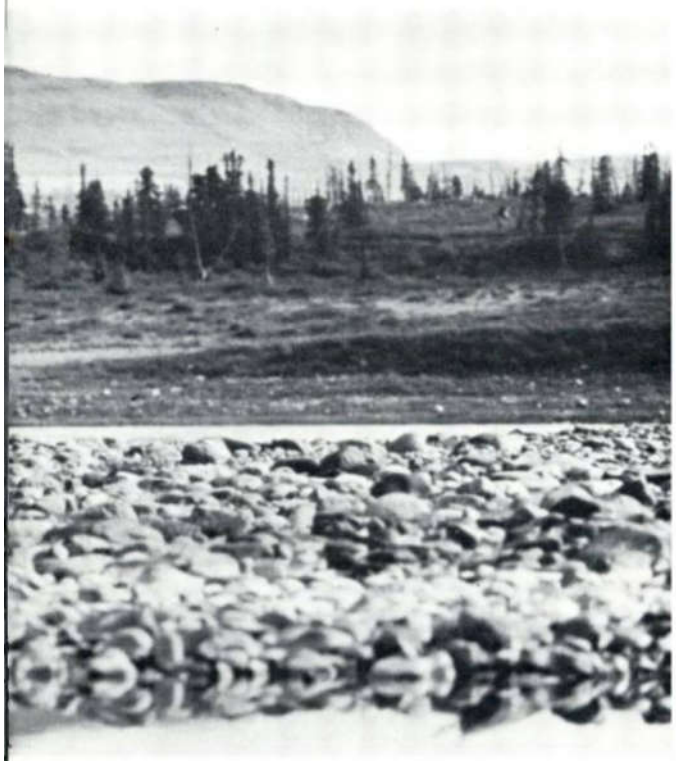
We packed the canoes, paddled to the edge of the solid sheet and walked across the lake dragging the canoes behind. The white ice was solid and thick at the edges but the black ice, we found, was thin and dangerous.

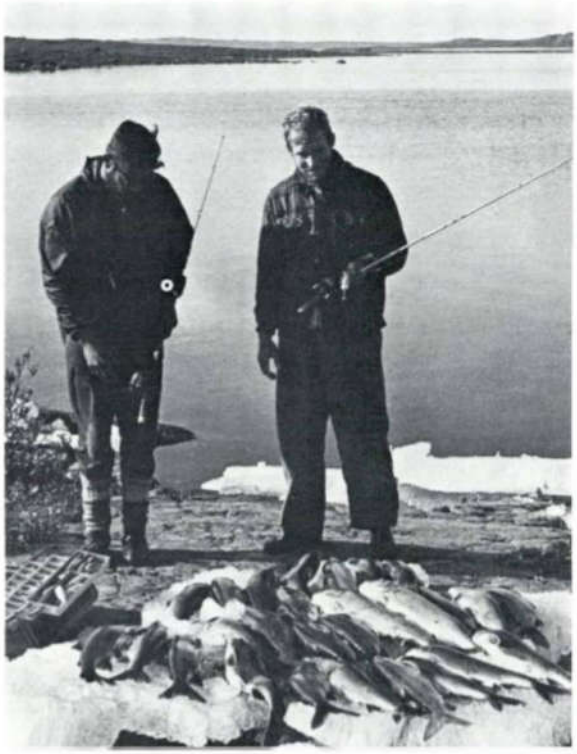
On the evening of 20 July we were out of Point Lake and into the lush Coppermine Valley where there was more and better firewood than there had been farther south. The trees here grow hard and firm-rooted and when they die they stand straight and dry out. There were moose, ducks, swans, flowers of all colours and many fish in the rapids; every bend in the river was a tableau in motion. On the day we crossed the Arctic Circle we stopped for lunch on a small island and swam.

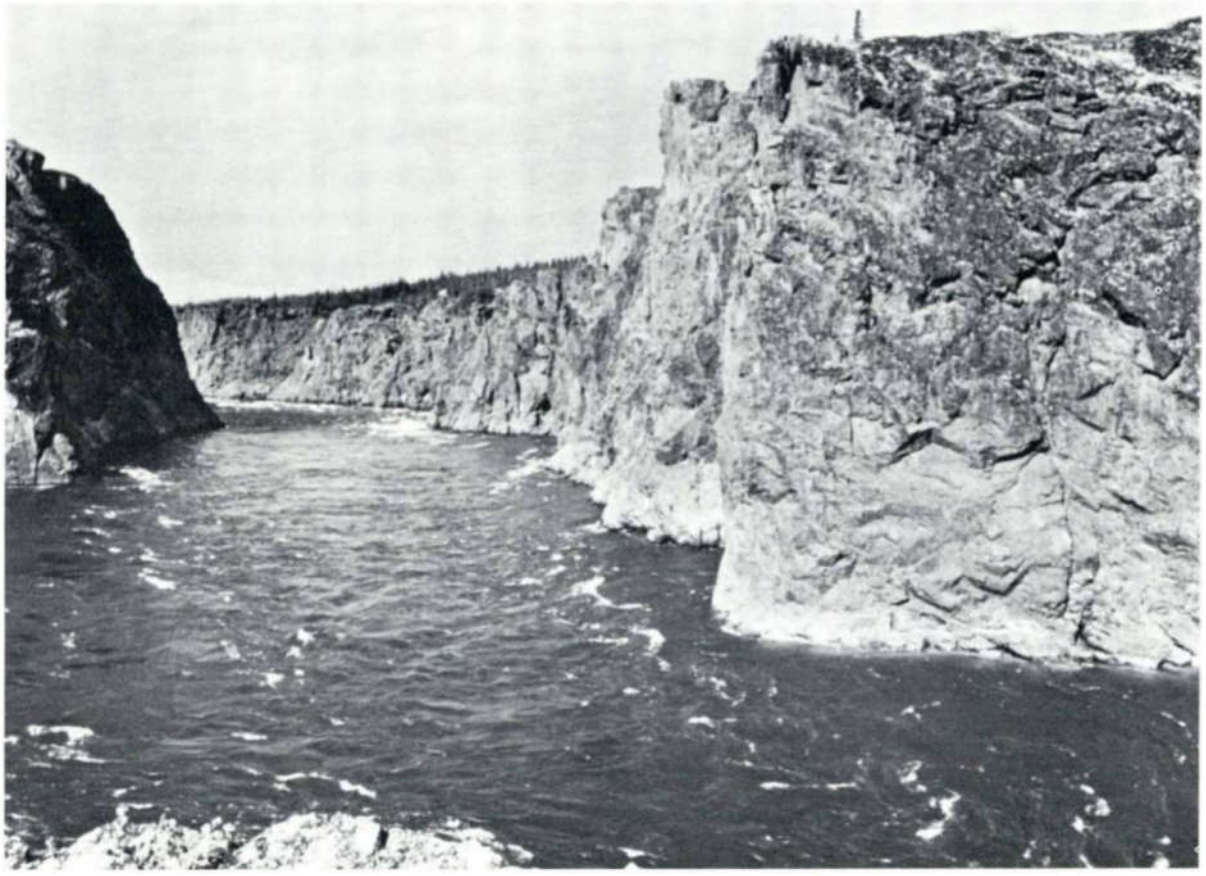
We ran rapids day after day, though at times the water was moving at least ten miles an hour without being white. At one rapid we plucked a young and very wet robin from the water. When it had dried out but appeared reluctant to try the distance between the canoe and land, we paddled closer to shore where, after hesitating long enough to have its picture taken, it flew off towards a tall tree.

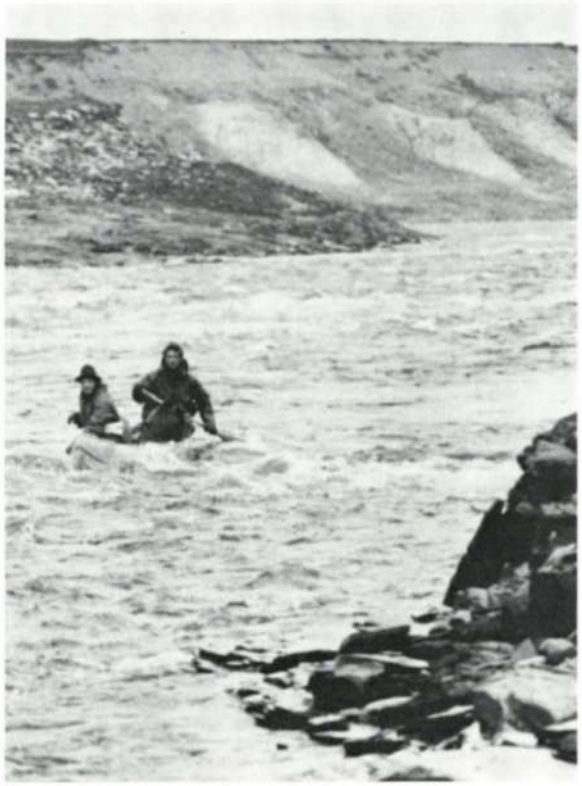
We shot one rapid that we called 'Devil's Gate' and later learnt that it was named, no less appropriately, 'Rocky Defile'. From this point on we saw no more moose and noticeably fewer trees. At times the valley was only a rock cut through which the water roared. We ran Sandstone Rapids on the slack side since great chunks of rock were falling away from the face of the cliff on the swift side. When the course appeared dangerous, the











Sandstone Rapids.

practice was for one canoe to shoot the swift water while the crew of the other watched.

At Escape Rapids white water churned straight into a sheer rock face and flowed away at nearly a ninety degree angle. We portaged around this one and at the end of the day were still wet from its spray. That night in camp we could hear from inside the tent the roar of Bloody Falls.

The last day we portaged Bloody Falls, where two hundred years earlier Samuel Hearne had witnessed the slaughter of Eskimos by his Indian guides and where an aging Eskimo woman, not hearing the cries of the victims continued to pull fish from the thundering waters until she too was killed.

We spent six days in the settlement of Coppermine before flying back to Yellowknife. The Eskimos held a drum dance in our honour. They seemed to appreciate the fact that we had paddled through their country on our own, although one woman, the wife of Jimmy Niptanatiak asked 'You come down the river? What for?' There was no answer to that question. But I sensed in my companions what they knew too – that they were ready to be back out there with the mosquitoes, the sore ankles, the muskeg, the long paddles and the sense of the North. ◆

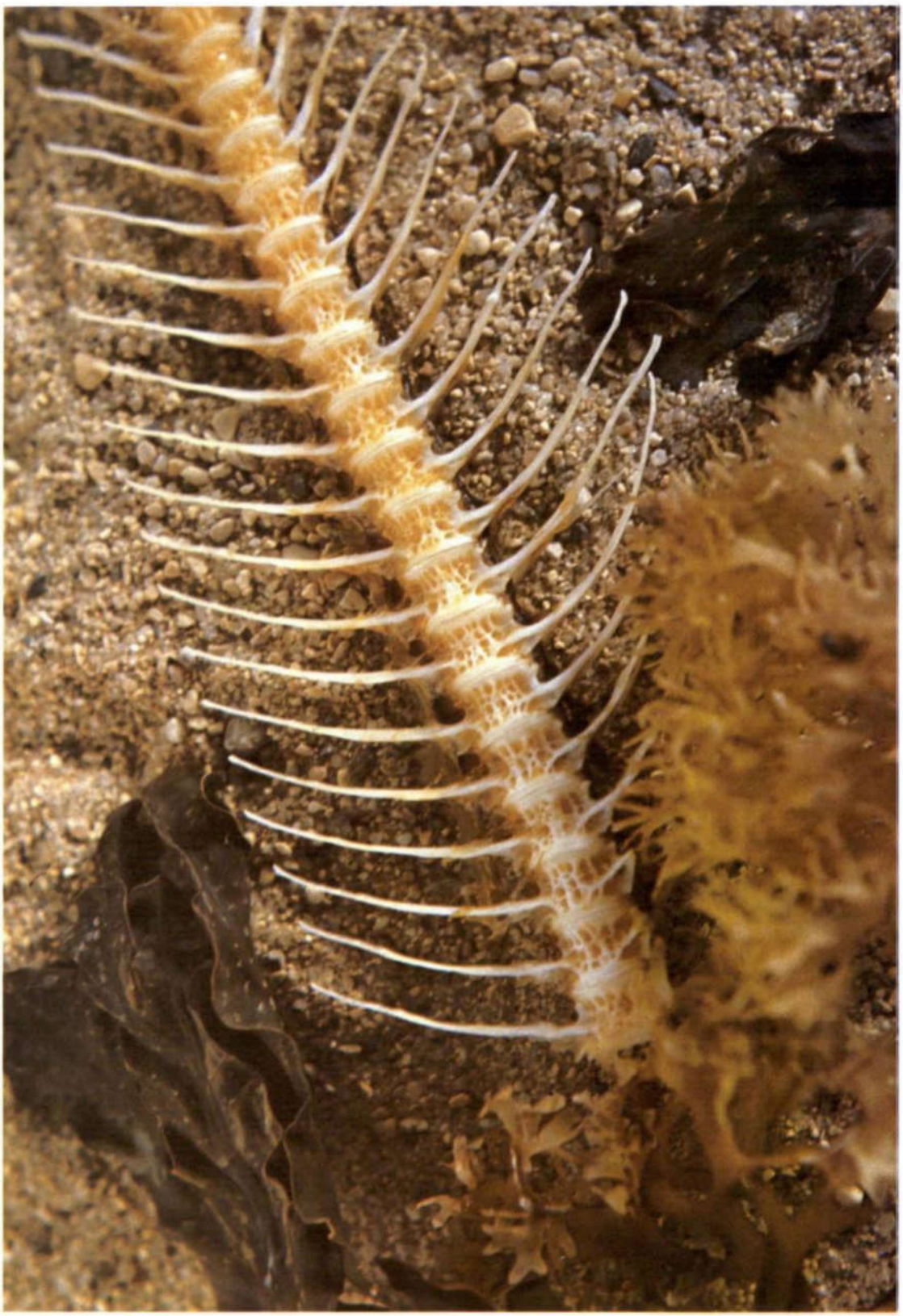
Bloody Falls.

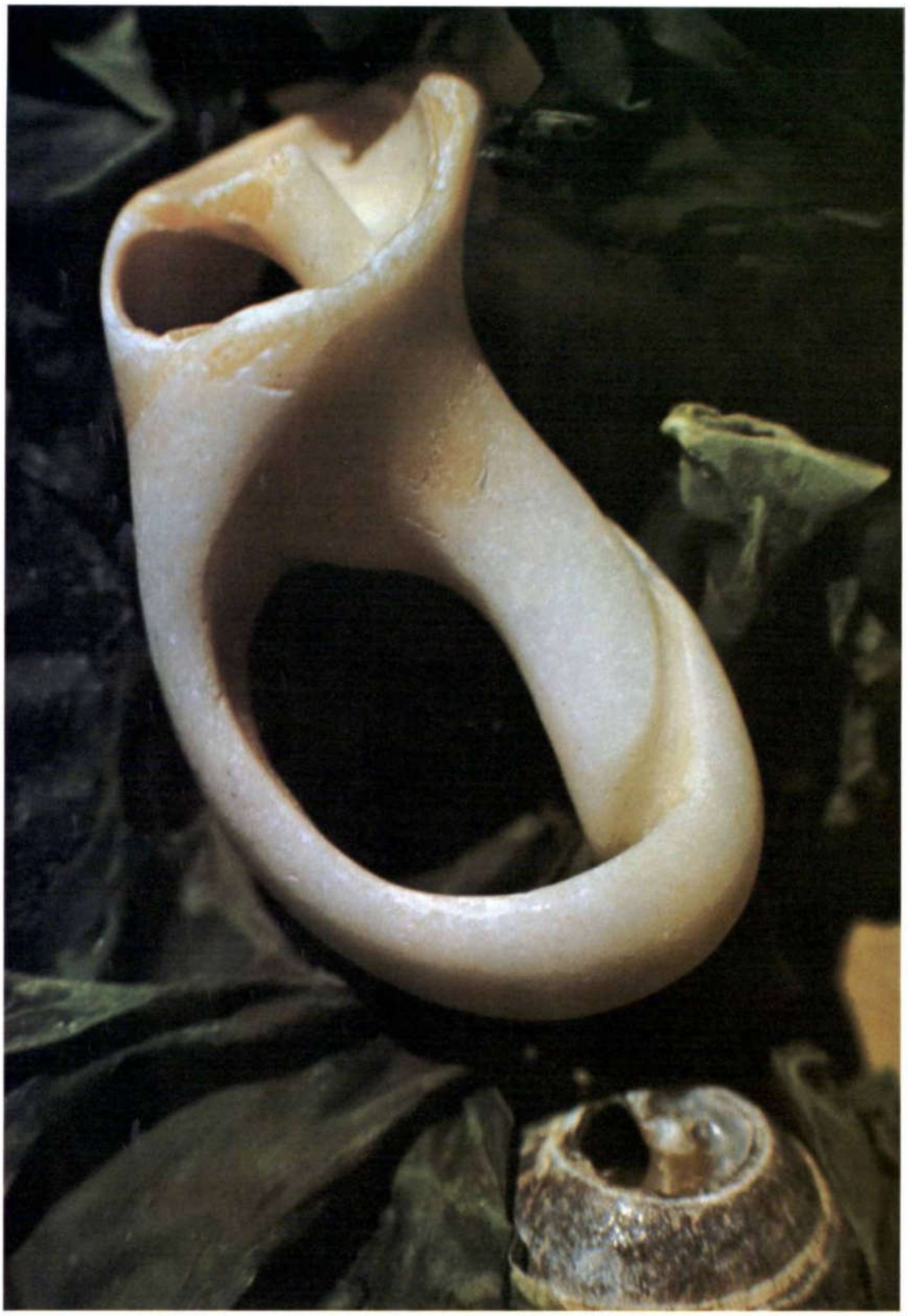
An Eskimo child eats dried fish at the Coppermine drum dance.

Patterns of the Sea Shore

The sea laps on the rippling sands,
drawing them back to itself with
every retreating wave. Or it crashes
against the cliffs to hollow out
caverns or topple down trees. On
the shore are left fragments — of
rocks, of the once-living creatures
of the sea, of the plants that are
nourished in the waters — flotsam
stirred by the wind and the tide.
To each is a beauty of its own,
caught by the discerning eye of

LILLIAN ALLEN





PATTERNS OF THE SEA SHORE

Canada's Incredible Arctic Owls

Text and Photographs by
DAVID F. PARMELEE

Chairman of the field biology program at the University of Minnesota. Professor Parmelee has spent much time on field work in the Arctic.

A young Snowy Owl, the real Ookpik, to give him his Eskimo name.

JUNE 28th WAS UNCOMFORTABLY WARM on those treeless barrens north of Cambridge Bay—on Victoria Island's south coast in the Canadian Arctic Archipelago. Despite clouds of mosquitoes that rose before me, I removed my parka to cool off. Suddenly the polar wind swept its icy fingers across my back, driving the insects to the turf and me back into my parka. No sooner done than a terrific force crashed against my head.

I staggered forward, nearly stunned, but spun in time to see a great white bird flapping across the tundra. I was in Snowy Owl country and knew it. We had been studying these incredible birds for a long time. Never before had I been belted so hard by one so far from a nest. Had it not been for the parka, I would have been scalped.

I say this with authority for I witnessed the near scalping of my former teacher, Dr George Miksch Sutton, George Lynn Cross Research Professor of Zoology Emeritus at the University of Oklahoma, who introduced me to the Arctic in 1953. Well do I remember 17 June that year when I reported finding my first Snowy Owl's nest high on a ridge some miles from the head of Frobisher Bay — this time on Baffin Island in Canada's Eastern Arctic.

In our exuberance to get to the nest, we tossed caution to the winds. A sudden, unexpected swoop by the male owl caught us off guard. On his first dive he literally pulled hair from Sutton's hatless head; then he circled quickly and struck another blow, opening a gash on Sutton's scalp and causing a considerable flow of blood. These owls gave us no quarter whenever we entered their territory thereafter. We soon dubbed them 'the vicious pair'.

Not all Snowy Owls are vicious. Some rightly can be called cowardly. Most will fly off when approached. But the odd bird or pair is unpredictable and downright dangerous. Over the years we developed great respect for these birds—which have a most remarkable behaviour and life history.

Few birds are so sensitive to the abundance or scarcity of their food. Breeding Snowy Owls depend almost exclusively on little microtine rodents called lemmings. Lemmings, of course, are famous for their population explosions followed by crashes that nearly deplete them. When lemmings are at low ebb, the owls appear on the traditional nesting grounds but do not breed. When lemming numbers peak, the owls show up in force and lay extraordinarily large numbers of eggs.

The clutch of a Snowy Owl's nest commonly may be eight to eleven eggs during a lemming peak. The number is outstanding when one realizes that other birds of prey of comparable size lay two or three, rarely four, eggs, for they are hard put to feed even a few young. The Great Horned Owl of more temperate regions, for example, usually lays two or three eggs each year. Conceivably, it lays eight to eleven eggs during a four- or five-year period. A Snowy Owl may breed once every four or five years. When it does, it makes up for lost time.

Snowy Owls are on the breeding grounds early, long before the first trickle of spring thaw when the ground is still blanketed with snow. Throughout winter the lemmings live in balls of grass and moss beneath this cover. They also frequent snow tunnels which extend out from the nest in many directions. When spring finally comes to the frozen land, water runs freely and fills the many lemming tunnels, flushing the microtines from their hiding places. For a brief time the land is crawling with wet, bedraggled lemmings. The visual stimulus experienced then by the many lemming predators must be great. The gull-like jaegers – predatory birds of renown – gorge on lemming at this time. But the Snowy Owl is cognizant of the lemming situation long before the inundations. Could it be that the owls make a lemming count before the thaw? We think so!

Spring thaws flush a young Brown Lemming from a tunnel rapidly disappearing in the soft snow.

Dr Sutton under attack as he examines the owl's nest.

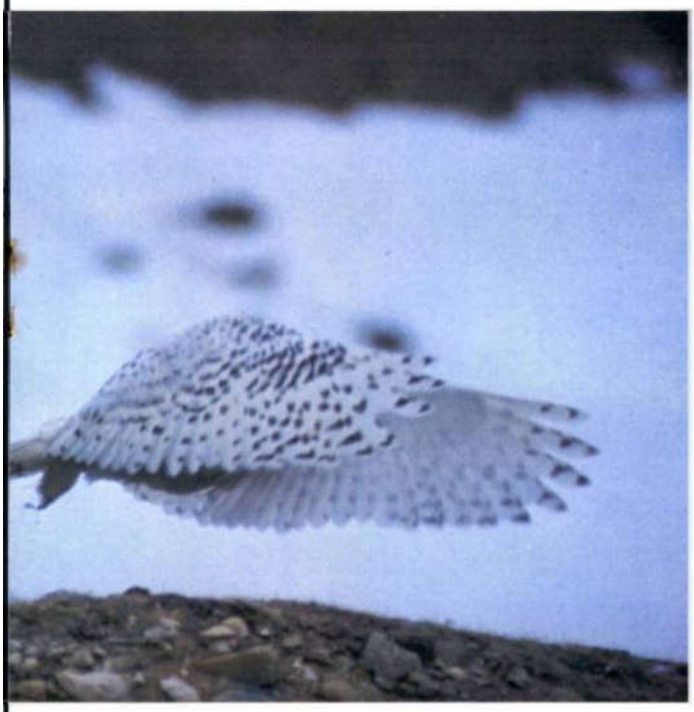
Some lemming tunnels run from the maze of passageways beneath the snow to the surface. Whenever a lemming pokes its head outside, it immediately becomes fair game to the Snowy Owl waiting motionless, though ever alert, on a rock or drift of snow. The imprint of splayed pinions and talons by a lemming hole is testimony of the drama that takes place between predator and prey. On occasion we have actually witnessed the kill, though the lemming is not always caught.

An interesting hypothesis suggests that the male Snowy Owl must catch and present a sufficient number of these early lemmings to stimulate the female to breeding. When lemmings are very scarce, breeding may be aborted at the start. When lemmings are abundant, the male places a goodly number of his catch beneath a favourite perch. Although we have never witnessed this piling up of lemmings by the male before a female, we have seen the evidence—upwards of a dozen uneaten lemmings scattered on the ground below a perch. At one perch we counted 26 lemmings in one heap!

That a good food supply is requisite at the onset of breeding is not in itself enough to ensure successful

The nomadic Snowy Owl hunts by sight on the open tundra, depending less on hearing and familiarity with the hunting ground than do other kinds of owls. Whether hearing and familiarity are more important in winter in the darkness of the polar night is not known. At right, splayed pinions of the female reveal the intricate spotting of the wing surfaces.

With the finesse of a ballet dancer the great bird comes in with every feather in place for a nearly perfect symmetrical landing. At times the birds touch down so hard that they literally bounce with their feathers totally disarranged.



breeding. In addition, the male must further stimulate his mate through courtship display. He goes about his business in a spectacular way.

A thrilling sight on any arctic breeding ground is a male Snowy Owl with a 60-inch wing span slowly beating across a broad valley from one ridge perch to another. The long stiff wings, stretched to the limit, rise high above his back, then sink far below his belly. On the ground he puffs out his feathers and wallows before the female; or he presents her with a fat lemming. A lemming presented in midair is a sight to behold.

One day a nearly immaculate male flew low overhead, carrying a lemming in his feet. It alighted at the base of a massive dome of rock, nibbled at its prey, and flew on. As it rounded the dome a grey female appeared, flying towards it. The two birds swung gracefully upward as they met. The white bird, not far from where Sutton stood unnoticed, then passed the lemming from its claws directly to the claws of the grey bird. Behaviour of this sort may continue long after mating. It conceivably functions in maintaining the pair bond which, with Snowy Owls, may need reinforcement from time to time.

A problem not so easily explained is the strange dimorphism in size of the sexes, for not only is the female greyer, more heavily spotted, but larger. Size difference in the sexes is not peculiar to Snowy Owls. It also occurs among the larger hawks, eagles, falcons, and other owl species. The dimorphism indicates a basic biological advantage in the evolution of a larger, and presumably stronger, female sex.

One hypothesis suggests that the stronger female is able to dominate the male in keeping the pair bond intact, especially during mating time; another hypothesis, quite apart from nesting, suggests that the dimorphism affords the species two ecological niches in which to hunt different types of prey, thereby insuring a better food supply. There are other ideas on the subject, but none are wholly convincing. It is a difficult problem to test scientifically.

Whatever the reason for the dimorphism, it is a boon to the investigator. Distinguishing the sexes is the first step in studying any bird's behaviour. The sexes in Snowy Owls are especially easy to distinguish during breeding time. Since the female alone attends the nest, her plumage soon becomes soiled and greyer, the more so as nesting progresses. Moreover she develops a conspicuous brood patch—an enormous, flabby, highly vascularized featherless area of pink belly skin used in covering the eggs.

At the onset of laying the grey female selects one of several possible sites, usually on some wind-swept prominence, not necessarily the highest in the vicinity. In turf or bare ground she scratches out a scrape with her claws. In this spot she moves about and even twirls, until a rather neat but shallow hollow results. No insulating lining of feathers or vegetation is ever added. The first egg is simply dropped on cold ground. It is covered immediately with the warming brood patch.

Immediate incubation probably has high survival value in Snowy Owls, for the first eggs are usually laid in May when temperatures often remain well below freezing. Snowy Owl eggs are about as tough as eggs come, but even they will freeze solid and crack open when left exposed to the mercy of polar winds.

Egg laying proceeds slowly. One egg is laid every 40 to 48 hours as a rule. Some eggs fail to appear at the proper time, and the interval between eggs may be four days, or twice the expected time. We know this to be the case, for each egg handled by us was marked soon after it was laid. We marked the eggs with fingernail polish—one to eleven dots per egg. Fingernail polish does not rub off easily, and the owls apparently do not mind red colour.

By the time a large clutch of eleven eggs is complete, as many as twenty-one or more days have elapsed. Inasmuch as incubation starts with the first egg, all these eggs have embryos of different ages.

Throughout the period of incubation, and for many days thereafter, the female's vigilance at the nest continues unabated. Meanwhile the male hunts. He hauls lemmings to the nest and presents them to his mate. She in turn takes them upon performing a rather ritualistic bowing and vocalization. As if anticipating a batch of hungry young, the old birds cache a supply of lemmings all about the nest.

The first egg hatches 32 to 33 days after the laying. The second hatches about two days later, the third

about two days after the second, and so on. When four days elapse between laying of successive eggs, there also occurs a four-day interval between hatching of these eggs. Several days before the young hatches, small radiating cracks, then a gradually expanding hole, appear in the shell. In due time the young cuts its way out by means of a horny pick on its upper mandible. It leaves the shell wet, blind, totally helpless. Within a few hours it metamorphoses into a ball of white fluffy down, though its eyes remain shut for some time.

While Sutton and I were busy preparing bird specimens one day at the Frobisher Bay military base, we were approached by several servicemen who immediately became engrossed in our work. Eyeing a Snowy Owl chick with unusual interest, one of the men stepped forward and asked where we got the baby Polar Bear!

By marking the tiny talons of Snowy Owl chicks with spots of fingernail polish, we kept track of each young from time of hatching until it was large enough to wear a numbered leg band. The owlet grows amazingly fast on the rich lemming diet: from a mere 45 grams at hatching it nearly doubles its weight by the third day; by the end of the first week its weight may be quadrupled; by twenty days of age, the young may attain a weight of a thousand grams or more. When forty days old, at a time approaching fledging, it may weigh 1,800 grams – or forty times its original weight.

Colour change in baby Snowy Owls is no less dramatic. The white down of newly hatched chicks is soon replaced by dark grey down. Ten-day-olds are nearly black. The black facial areas of older young are then replaced with white feathers, resulting in very odd white-faced, sooty-bodied juveniles. White feathers eventually push out all of the dark down. Only then do the young become the predominantly white birds that are widely recognized as Snowy Owls.

No two sibling owlets are of the same age, since each has a different hatching date. By the time the eighth young hatches, its oldest sibling may be a whopping 15-day-old youngster. One wonders how a nest could possibly hold so many young. This problem, too, the Snowy Owls solve. Although a few young remain in the nest until 20 or even 22 days old, most abandon it when only 14 to 16 days old at an age long before they fly. Quick and agile afoot, they fan out from the nest and disperse widely.

Not only does this premature dispersal solve the problem of cramped quarters, it probably ensures greater survival of young. A large predator chancing on the nest could destroy the entire contents, whereas it might not find every scattered owlet. After a time the nest does not appear to be the healthiest place. As the summer heat and putrid remains of uneaten lemmings increase, the nest often becomes filthy. Flies gather. There are other problems as well.

The mysterious disappearance of certain nestlings has led investigators to suspect cannibalistic tendencies among Snowy Owls. Observations at several Victoria Island nestings in 1960 led us to the same conclusion. In finding no evidence of predation, we simply could not account for the disappearance of several of our marked nestlings. Two years later we had a partial answer to the puzzle.

Lemmings were almost nonexistent in the Cambridge Bay area in 1962. No owls bred there that year. In traversing a familiar valley, I recognized a lichen-covered rock that had marked one of our owl nests of 1960. Wishing to show the site to Sutton and a colleague, H. A. Stephens, I kicked snow from the long-abandoned scrape. Out flew an owl pellet. The pellet – usually a three- or four-inch-long mass of lemming fur and bone – had been regurgitated by one of the former birds of this nest. Such pellets are commonplace wherever owls nest or perch. This one was special. It held a bird band.

I had placed this very band (number on file) on an owlet at this nest on 24 July 1960. The youngster had disappeared after 28 July that year when sixteen days old.

Here was fair proof of cannibalism. But finding one bit of evidence merely deepened the puzzle. Whether this individual was actually killed by an older sibling or an adult is uncertain. It may have died by some other means and then been eaten. It is surprising that large

young, sixteen days or older, are eaten. Certainly there had been no lack of lemming at Cambridge Bay that year.

At a 1966 nesting, on Jenny Lind Island about a hundred miles southeast of Cambridge Bay, only one of six owlets under observation survived. Although one owlet disappeared, we believe that four died of starva-

A female owl returns to the nest that holds an egg and young of various ages. Breeding pairs maintain territories which they defend against their own species, allowing plenty of room between nests. There is little concealment and scattered white feathers mark the nest site, as on the one at left, where the first white down of the younger owlets has not yet been replaced by grey.

tion, so scarce were lemmings that year. Yet, the carcasses of the four owlets remained untouched in the nest. The problem of cannibalism is complex and deeply rooted in the behaviour of these birds. No simple explanation here.

Flightless young may return to the nest having once left it, but they do not remain there long. By and large they hide away in some depression or stony cover, be it a few or hundreds of yards from the nest. Wherever they lurk, the male parent somehow keeps count.

Dispersed young produce an ear-splitting squeal that can be heard a long way. For a human to hear these rending screams issuing from a multitude of hiding places, and not to know their source, is an unnerving experience. This owl language probably plays some role in the feeding process, for the male finds his young and before each drops a freshly-killed lemming. This he does faithfully in addition to supplying the nest with sufficient food.

The instinct to remain at the nest is powerful enough to keep the female there as long as an egg or young is present. One Cambridge Bay female sat on an addled egg (no embryo within) for several days after the last of her young had already wandered afar. Finally she, too, deserted.

Under care of both parents, the young eventually reconvene and band together. United again they move about the country until each in turn fledges. Flight is not spontaneous. It happens very slowly. The young spring from the ground and beat their wings furiously, only to fall back many times before accomplishing even a short flight.

Adults can be hideously vicious in defence of these young. Failing in this, they will resort to broken-wing running, a behaviour common to many birds. But when a Snowy Owl goes into the act, it is something else again.

With wings stiffly set at half-mast, the old bird erects many feathers, leans forward, stretches its neck, then glares fiercely at the intruder. Instead of leaping forward with renewed fury, it suddenly goes limp. Like some miserable, tortured clown, it scuds along, flailing turf and snow with great wings, stopping momentarily to rock and wallow, all the while uttering high, thin squeals interspersed with weird squawks. Almost as suddenly the

Not quite ready to fledge, but away from the nest, a white-faced, sooty-bodied flightless juvenile boldly defies human intrusion. Its grey down feathers are being pushed out by the tips of the incoming white feathers to which they are attached. By flying time the young rapidly takes on the appearance of the adult. This was one of the Cambridge siblings banded in 1960 that migrated to such widely separated places.

bird stands upright, looks about quizzically, glares fiercely again, then resumes wing-flopping and wallowing. Or it flies a short distance ahead of the intruder before renewing the act, thus 'leading' a potentially dangerous foe from its young. One Cambridge Bay female led me a merry chase to a point fully two miles from where she had left her young.

Juveniles forty to forty-five days old fly weakly at a time when white body feathers rapidly push out the sooty down. Not quite fledged, they are extremely swift-footed and cunning. In trying to run down a banded juvenile that could fly only short distances, we forced the youngster to jump into the water of a narrow but very long lake. By using both wings as paddles, it barely made it across the deep waters to the opposite shore some fifty feet away, where it escaped us.

Snowy Owls fledge during August when approximately fifty days old, some probably a little older. Considering the fact that as many as fifty-four days elapsed between the laying of the first egg and hatching of the last young at one Cambridge Bay nest, and allowing another fifty days for fledging, the interval from first egg to fledging of the last young may add up to 104 days—a remarkably long cycle for any polar breeder.

Most arctic birds have a much shorter breeding cycle. The Lapland Longspur, a small sparrowlike bird, for example, may have a cycle of thirty days or less. Long or short cycled, both owl and longspur are highly successful arctic species.

The period following the fledging of the young owls is at best poorly known. Presumably the family groups remain together on the breeding ground for some days. When and how the parent-offspring bond dissolves is not understood at all.

Many Snowy Owls reportedly appeared in the settlement of Cambridge Bay during the fall and early winter of 1960, following successful nesting that year. Whether these many birds seen then were local or from afar is anyone's guess. Those that were shot by the Eskimos apparently had no bands, at least no band was reported. Our banded Cambridge Bay owls turned up elsewhere.

The first reported to me was one that I had banded at Nest 9 when it was still a youngster on 18 July. A year and some months later, on 19 October 1961, it was shot

near Clyde Forks in Eastern Ontario, not far from the Canadian capital of Ottawa. Still another, also banded at Nest 9 on 18 July, was shot near Hudson Bay at Attawapiskat, Ontario, on 8 May the following year.

The far-distant recoveries of two siblings from the same nest was noteworthy. The recovery of the third sibling, also banded at Nest 9 on 18 July, was wholly unexpected, for the probability of such a recovery is practically nil. Even more surprising was the place of recovery. The third sibling was taken west of the Kurile Islands on Sakhalin, USSR, on 18 February 1962. Although the three siblings were recovered within a seven-month period (October to May), it took a couple of years for the Bird Ringing Center at Moscow to forward the band number to our Bird Banding Laboratory at Laurel, Maryland. (Map on p. 41 shows recoveries.)

Recovery of the three siblings may be significant in that it indicates an extremely wide dispersal of young. If this is true of Snowy Owls in general, we may have an answer to why the species is monotypic (one population) rather than polytypic (two or more populations); for with a wide dispersal of young goes a wide dispersal of genetic material.

When the flow of genetic material becomes restricted through physical, physiological, or even behavioural barriers, bird species tend to segregate into distinct populations called subspecies. Distinct populations have been described for many arctic bird species. No one has yet been able to split the Snowy Owl species. Snowy Owls from Siberia and Canada seem to be alike. All round the polar region Snowy Owls appear to be of one population.

Snowy Owls do not remain in the polar region all of the time, though some can be seen there almost any time, even in dead of winter. Presumably large numbers migrate or drift southward when severe food shortages force them out of the far north. Periodic invasions of these birds into southern Canada and northern United States are not unusual and often interpreted as signs of lemming crashes. Less easily explained are their wanderings into the deep south, from Georgia to southern California.

In the central midlands, where they are considered rare winter visitors, Snowy Owls staged a small-scale invasion during the winter of 1967-68. Of several birds brought to our attention then, one in particular held our interest; for this bird, an oddly marked female, had taken up residence in the little town of New Strawn not far from where I formerly lived in east-central Kansas. The sudden appearance of a huge, strange bird perched on rooftops, poles, and TV antennas frightened many of the townspeople. Some thought only to destroy it. But

When handled a baby owl stiffens and feigns death. This Baffin Island owlet has made its body so rigid it can be balanced on a point of rock.

when it was discovered to be a rare arctic owl, the people of New Strawn took steps to protect it and challenged all who approached the bird for a close look.

A bird watcher's dream, this individual was so docile that one could walk up and snap its picture. It flew from house to house and not infrequently was seen catching mice in the town lumberyard. She remained in New Strawn nearly a month before she was accidentally electrocuted.

Whether these far southern wanderers ever return to the Arctic has been debated a long time. Some ornithologists believe that the birds may summer far south of the breeding range following years of far southern migrations.

Next to shortage of food, man probably is the Snowy Owl's chief enemy. Judging by the number of mounted trophies, the birds have long been a favourite of American sportsmen. However, there is a growing trend in this country to protect birds of prey. It is now illegal to shoot most hawks and owls, including Snowy Owls, in Kansas and several other states. Snowy Owls are protected in most areas of Canada.

Eskimos still eat the Snowy Owl with fervour. That this strange food would appeal to man first struck me as odd. In asking an Eskimo friend how the birds taste, he grinned and said 'like chicken'. I never got up the courage to tackle one.

Non-human predators of Snowy Owls appear to be rare. Probably the most vulnerable time for the owls is during nesting. It has been our experience that small predators are no great threat to a nest. Once in a while a jaeger gets away with an egg or young, should it catch the old birds off guard. But jaegers may be more guilty of thievery than anything else.

At one of our marked nests in particular, the owls were prone to fly off a long way whenever we intruded. Invariably several jaegers followed us in and circled the nest, awaiting an opportunity to grab an egg or chick. We usually succeeded in driving them off. One day we were horrified to see a jaeger drop straight down to the nest. Instead of taking one of the baby owls, it snatched a dead lemming and tore off across country with another jaeger in close pursuit. Even dead lemmings are the preferred food.

This fondness for lemming doubtless buffers predation of other species in years of lemming abundance. Predators go after everything they can catch when lemmings are scarce. Snowy Owls, for example, can be hard on ptarmigan (arctic grouse) when the lemming cycle is low. Just what role the lemmings, owls, and other predators play in the up and down cycles of ptarmigan and other prey species is still very much a moot question.

We have often wondered how nesting owls react to really large predators such as bear or wolves. During the summer of 1969 I had an unusual opportunity to witness such a confrontation – this time on Bathurst Island in Canada's High Arctic.

In circling a small ridge, I suddenly found myself face to face with a pair of large arctic wolves that had been lying down hidden from view. The white creatures jumped up, looked me over, then loped off towards bluff country. They headed in the direction of one of our owl nests.

The male owl of that nest had always retreated from us. When it spied the wolves approaching, it was anything but shy. It dive-bombed the canines repeatedly, coming in close at times, not actually striking however.

The owl who came to town and took up residence in Kansas for a month pants and spreads its wings on a warm December day.

So annoyed were the wolves that one of them leapt high at the plunging owl. Its great jaws slammed shut with a ringing snap but missed. No damage was done to either bird or beast. Most significant: the nest was passed unnoticed!

At times the owls are the ones pursued. This occurs when they enter the territory of nesting hawks or falcons, as will happen when the territories of owl and another predator lie close to one another. Human intrusion will often trigger the confrontation between the birds of prey. One Snowy Owl flushed from its nest by Sutton and me alighted on a big rock just above a cliff

on which Peregrine Falcons were nesting. A Peregrine attacked fiercely, towering and plunging, hitting hard as the owl ducked and dodged. The owl finally rose in clumsy counterattack and threw its feet up as the falcon stooped.

Sometimes the pursued, upon entering its own territory or sanctum sanctorum, quickly turns and pursues the pursuer. The sudden change of behaviour may be indicative of the importance of the territory. Snowy Owls solve the problem of getting along among themselves by keeping a healthy distance of a mile or more between their nests. When not breeding, the owls are truly solitary, each sitting for hours on end at some lonely perch.

The owl perch merits mention because of the unique role played by it in the over-all ecology and economy of the Arctic. Especially is this true of the great desert tundras that are characterized by innumerable ridges, bluffs, frost-heaved knolls, various glacial deposits, and a conspicuous lack of plants. Outcroppings of rock, as well as boulders and erratics strewn here and there, are ideal perches for the Snowy Owls, which in turn fertilize the nitrogen-poor soil or peat that lies about the rocks.

Here develops in time a rather copious vegetation, though it covers but a spot of the larger ridges or bluffs. Tops of the smaller knolls may be covered completely. These patches of lush vegetation on an otherwise barren ground are the owl perches or mounds—a salient feature of the polar desert.

H. A. Stephens, the botanist on our 1962 expedition to Victoria Island, carefully collected and identified the plants of the owl mounds of Cambridge Bay. He found 36 different species of plants, the most common being saxifrage *(Saxifraga tricuspidata)* and lichen *(Cetraria nivalis)*. Plants of the owl mounds trap both water and seeds. They also provide food for the lemming whose burrows ramify through the vegetation and peat and extend between the rocks and beneath the boulders. Mammalian predators of the lemming are attracted to the mounds, and it is here that the Eskimo places his fox traps.

Not many birds other than owls utilize the mounds for nesting. Snow Geese appear to be exceptional in this respect. Scattered pairs of geese on Jenny Lind Island

The owl who stayed on Bathurst Island, incubating, displays its horns, which are tufts of feathers. All observed Bathurst Island Snowy Owls had conspicuous horns but none were seen on breeding populations in other parts of Arctic Canada.

find them ideal nesting sites. More surprising is the fact that some geese utilize the mounds even while owls are present.

We first became aware of this phenomenon on Jenny Lind Island in 1966, when we found an active Snowy Owl nest literally surrounded by twenty-three Lesser Snow Goose nests. Some of the geese nested successfully within a few yards of the owl nest; others were scattered over the rocky slopes below the owl mound. All enjoyed the protection from foxes and other predators afforded by the owls.

This direct relationship between owl (Snowy Owls on occasion will kill even large ducks and geese) and goose we thought odd and wondered if it occurred in other areas as well. On Bathurst Island in 1969 we found scattered pairs of Greater Snow Geese nesting in proximity to five active owl nests, one goose nest being only thirteen short steps from an owl's. We witnessed no confrontation between the two species, and really did not expect any, for it has long been known that song birds nest successfully in proximity to hawk nests. The predatory hawks normally do not hunt prey close to their own nests.

But with the owl and goose combination we have a clear-cut case of a bird of prey benefiting an important game species—another argument for not shooting the owls in the south. The main point here is that the ecology of even so-called worthless species may be deeply enmeshed with those endowed with high economic value. Not to recognize biological relationships of this sort at all levels of life is indeed a mistake.

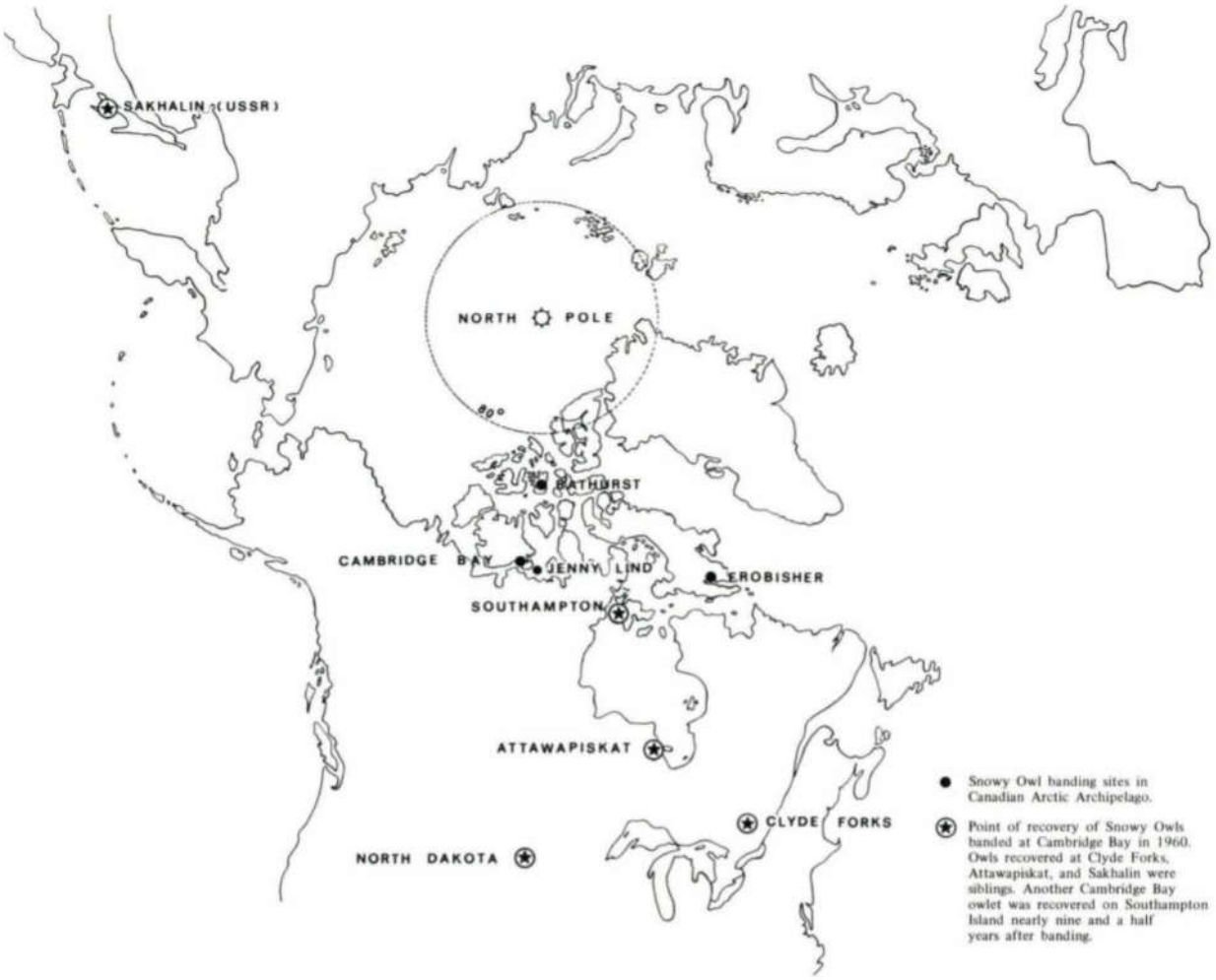
The Bathurst Island Snowy Owls posed still another problem. They laid smaller clutches on the average than expected, despite the fact that lemmings appeared to be peaking on the island that year. Peaking numbers at the high latitudes of Bathurst Island seemed to us, however, to be far less than the peaking numbers witnessed by us at the lower latitudes of Cambridge and Frobisher Bays. Moreover, two species of lemmings, the Brown and the Varying, occur at the lower latitudes, whereas only the Varying Lemming ranges into the high latitudes. Thus, peak lemming years in the High Arctic may be quite different from those of the Low Arctic. It appears that more lemmings are available to the owls at lower arctic latitudes.

This line of reasoning suggests that a lower clutch size in some way relates to a lower food supply, in this case a lemming supply – a hypothesis contested by some biologists who hold to the rule that the clutch size is genetically fixed, or at least that it is not synchronized with food supply.

We often wondered whether the owls ever attempt nesting when lemmings are only moderately abundant, *i.e.*, when lemmings reach a level that is neither peaking nor at the lowest point. Brown Lemmings especially show this phenomenon the year preceding the peak year during their usual four- or five-year cycle. On Jenny Lind Island in 1966 lemmings were only moderately abundant at best. So modest were their numbers that we expected to find no breeding owls at all that year. Diligent searching nevertheless disclosed two widely separated owl pairs breeding in the eastern half of the island. Here was a rare opportunity to observe nesting owls outside a peak year – the only opportunity of its kind I have had to date.

The nest of one pair was on an owl mound in the centre of the nesting colony of Snow Geese referred to earlier. When first seen 15 June, the owl nest held but

At a remote Bathurst Island nest Philip S. Taylor checks uneaten lemmings. As late as June 18th much of the land was covered with hard snow.


SAKHALIN (USSR)
NORTH POLE
90°
BATHURST
CAMBRIDGE BAY
JENNY LIND
FROBISHER
SOUTHAMPTON
ATTAWAPISKAT
CLYDE FORKS
NORTH DAKOTA
Snowy Owl banding sites in Canadian Arctic Archipelago.
Point of recovery of Snowy Owls banded at Cambridge Bay in 1960. Owls recovered at Clyde Forks, Attawapiskat, and Sakhalin were siblings. Another Cambridge Bay owlet was recovered on Southampton Island nearly nine and a half years after banding.

six eggs—probably the true clutch, since hatching appeared normal. Hatching started about 2 July, but most of the brood perished before fledging. One sibling (third) disappeared, and four siblings died in the nest some time during 18-24 July. The dead owlets appeared to have been in poor condition prior to death and probably died of starvation. Only the fifth sibling survived. It seemed healthy enough when last checked on 5 August. With the single exception of a Lapland Longspur nestling, the only prey seen at this nest were lemmings, and they were not always present.

The second nest was on an inconspicuous mound in rather flat, sandy tundra. The five young were first seen 17 July when two recently killed lemmings and the remains of a female King Eider were by the nest. All five owlets, but no food, were in or near the nest when last seen on 20 July. Whether any of these young survived was not known.

There can be no doubt that the owls breed when lemmings are scarce. Low breeding density, clutch size, and nesting success appear to be by-products of the limited food supply.

Information concerning most biological problems comes slowly and in little pieces. Likewise, information on Snowy Owls comes in bit by bit, and many seasons will pass before very much is known about this complex species. Biologists will be gathering the pieces in the meanwhile. ◆

SNOWY OWL BANDING RECORDS

No. 518-83108
Banded at Cambridge Bay 18 July 1960, recovered Attawapiskat, 8 May 1962.

No. 518-83109
Banded at Cambridge Bay 18 July 1960, recovered 80 kilometers northwest of Yuzhno Sakhalinsk, Sakhalin, USSR, 18 February 1962.

No. 518-83112
Banded at Cambridge Bay 18 July 1960, recovered near Clyde Forks, Lanark Co., Ontario, 19 October 1961.

No. 518-83142
Banded at Cambridge Bay 28 July 1960, recovered at Gilby, North Dakota, 10 January 1965.

No. 518-83117
Banded at Cambridge Bay 18 July 1960, recovered at Boas River, Southampton Island, November 1969.

CAPTAIN JAMES: FOOL OR HERO?

BY HAROLD W. HELFRICH, JR.

Newsman by profession, Mr. Helfrich is now on the editorial staff of Dayton 'Daily News' after many years with the Yale University News Bureau.

CAPTAIN THOMAS JAMES was looking for two things: signs of Henry Hudson who had been cast adrift by his mutinous crew, and a Northwest Passage to the Indies. Not necessarily in that order.

Was he a fantastic fool, as many historians have implied? Or did he deserve a contemporary's laudatory description, 'Heroicke Soule'?

He has, at least, a transient claim to immortality. The southern arm of Hudson Bay is named for him; there he made most of the fateful decisions whose wisdom is still debated after almost three and a half intervening centuries.

When all of his narrow escapes from destruction are summed up, it is scarcely any wonder that history has reservations about him. To think that, with the wholehearted blessing of King Charles I of England, he had the fantastic optimism to carry a royal letter of introduction to the Emperor of Japan!

The ill-starred Hudson had vanished only two decades earlier. Thomas Button's privations in western Hudson Bay were well known to mariners. Jens Munk had escaped miraculously with only two of his 62-man crew just eleven years before. Yet here was James, challenging Fate by going into that vast inland sea in 1631.

From his first sighting of icebergs off Greenland's Cape Farewell, Captain James seemed to have been in constant danger of losing his 70-ton ship, the *Henrietta Maria* (named in honour of the Queen). His arduous trip through Hudson Strait was nerve-shattering, one escape from disaster hard on the heels of another. His journey across the huge bay and along its hitherto unexplored southwestern coast brought him few moments free from tension.

His only relaxation occurred in a brief encounter with Captain Luke Foxe aboard the ship *Charles* (named to honour the King). They were on the same errand—discovery of a water route to the 'South Sea'. Both knew that their similar voyages and objective had been Foxe's idea initially. James's venture was launched by Bristol merchants who were afraid they would lose a good trade opportunity to their London competitors.

The two captains had sailed from England within a few days of each other in May. That they met in the tremendous emptiness of Hudson Bay was not really such a remarkable piece of luck. Both were intent on finding a Northwest Passage somewhere along the bay's southwestern shoreline, and that is exactly where they came together.

Foxe, a rough, self-taught mariner with supreme confidence in his own abilities, suffered through his journey with a crew that had been chosen for him. He had wanted men 'of Godly conversation, and such as, their years of time not exceeding 35, had gained good Experience' in high northern latitudes. He got no veterans of the North, and his chief officer constantly complained and begged to turn homeward, failing to recognize that Foxe was 'engaged in honor . . . having the eyes of Court and Commonwealth fixed upon me in expectation'.

James was Foxe's almost exact opposite in many respects. Contemporaries described him as 'a man of great learning and experience in navigation'. Others said he was 'a rich barrister-at-law of the Inner Temple'. Some old sources claim that he had sailed into the Arctic before, but there is no proof.

He chose his own men, avoiding 'Voluntary Loyterers'. Unlike Foxe, he 'utterly refused' Arctic veterans 'for some private reasons unnecessary here to be related'. Inevitably those private reasons are suspect: they may have contributed to, or may even have caused, many of his difficulties in Hudson Bay.

Captain James studiously ignored Foxe's ill-concealed disdain for him. Whether he intended it or not, his show of humble courtesy put Foxe into a poor light later before the public.

'I did perceive him to bee a practitioner in the Mathematicks; but . . . I found that he was no seaman,' wrote the irascible, unpolished Foxe with a venomous pen that also alienated the public. 'We dined betwixt decks' he reported after visiting James's ship. The little vessel 'threw in so much water . . . I began to ponder whether it were better for his company to bee impounded amongst Ice, where they might be kept from putrifaction by the piercing ayre or in open Sea, to be kept sweete by being thus daily pickled'.

Foxe's sarcastic pondering coincidentally struck upon the exact fate of his rival.

Wood engraving by Gustave Doré illustrating the Rime of the Ancient Mariner which was in part derived from James's story.

James continued his sweep southward, finding no seaway toward the Indies. Passing round the cape which he named after his ship and Queen, he sailed down the bay that now bears his name. Winter arrived swiftly there, taking him by surprise. Shifting winds and strange currents tricked them 'in the thick Fog when we could see no Land-Marks'. Shoals threatened them everywhere. He found 'Snow, Hail, and stormy Weather, and colder than ever I felt it in England in my life'.

As September ended, they were driven among rocks, shoals and unpredictable tides, 'that which way to turn we know not . . . All these Perils, made a most hideous

and terrible noise in the Night Season'. He cast about desperately for a haven. Soon, winter had them so thoroughly in its cruel grasp that 'the Bows of the Boat were likewise [as the ship] frozen half a Foot thick,' and even when the topsails 'hung a Sunning all day, in a very lump,' the sun was unable 'to Thaw one drop of them'.

The increasing threat to the ship from floating ice decided James 'to bring the Ship a-ground, for no Cables nor Anchors could hold her.' He held low cards to take such a risk: stony ground, soft sand that might build up around the hull, possibly summer tides insufficient to refloat the vessel, and fast-running tides that might batter her with ice or overpowering surf.

The elements seemed to conspire against Captain James. Ice floes intervened; the winds shifted, playing devilish tricks on his crew as they strained—at times hip-deep in the numbing water—to haul the ship aground on an island near the foot of the bay. Rain soaked them. The half-tide nearly swept their craft upon the nearby rocks. At last they put anchor to shoreward in five feet of water and rested.

Thomas James faced an awesome decision. More wild winter gales would break up the *Henrietta Maria*. He could hope to survive only by deliberately sinking her. He would have to take his chances of re-floating her when spring came. Until then, Hudson Bay lay frozen for most of the 900 miles between the primeval island and their only possible escape route; the strait was certainly choked with ice. He discussed the alternatives first with his officers, then with his men. All agreed: their greatest hope of ultimate escape lay in carrying all their provisions ashore and then 'to draw her further off, and sink her'.

Before they had finished transferring their belongings ashore to spend the winter 'it blew a Storm at N.W. our bitter Enemy'. The crazed sea again hurled the ship into the sand with shattering force. James called this 'the fatal Hour that put us to our Wits end'. He went down into the hold with the carpenter. Taking his auger, he 'bored a hole in the Ship, and let in the Water'. In a frenzy they 'began to cut out other places to bore thorow'. Still, the ship sank too slowly. 'She began so to beat in her Dock, more and more, that we could not work, nor stand to do any thing in her.'

Five hours passed as they watched helplessly. Her rudder was beaten off and every minute they expected that 'the Ship would open and break to pieces'. Finally, she settled on the bottom carrying with her most of their bedding and clothes as well as the surgeon's chest. Her main deck and masts groaned above the ocean's heaving surface, but her hull was deep in soft sand. She had found protection from the brutal assaults of Nature gone mad.

The winter on Charlton Island (they named it in honour of the King's son, the future Charles II) was a season of agony, a test of human endurance in a most ruthless environment. Like Hudson, Button, and Munk before them, they survived the harsh climate in their primitive bivouac. Four of their number had succumbed, many were sick and all were weak when in April, with two iron bars and four broken shovels, they began to dig the ice out of the ship, thaw the pumps, plug the underwater holes, and pump out the ship.

The terrible gamble paid off. Never before had seamen marooned by a marrow-chilling high-latitude winter deliberately sunk their ship—and then laboured in the icy waters to raise it, almost like Lazarus from the dead. In June they heaved out the ballast to lighten the vessel and finally, on the 22nd, had her afloat.

Their provisions were put aboard and with the coming of hot dry weather they waited anxiously for the ice to clear leaving them an escape route northward. For a lookout they had a 'Watch-Tree' on the highest part of the island. On the 25th Captain James and a companion went to this 'eminentest Place of the Island' intending to make a fire that might be answered by 'any Salvages on the Main or the Islands about us'.

While James climbed the Watch-Tree his comrade 'unadvisedly' set ablaze some low trees to windward. The dry wood and moss 'took Fire like Flax or Hemp' and in moments a sharp breeze had sent the flames crackling towards the Watch-Tree. James clambered half way down, but he was too late. 'The Fire took in the bottom of it, and blazed so fiercely upwards that I was fain to leap off the Tree and down a steep Hill.' The two men ran for their lives, away from the raging flames. Quickly, the last powder and beef were loaded aboard ship. Their new suit of sails was carried to the shore where it could be cast into the sea for safety.

The next day the wind shifted; the flames spread in their direction. They hastened to the waterside and watched in amazement as 'the Fire came towards us with a most terribly rattling noise'. The holocaust, a mile wide, reached their three small dwellings 'and (in a trice) burn it down to the Ground'. That night, James wrote with justification, 'we lay all together aboard the Ship, and gave God thanks, that he had shipt us in her again'.

Before the fire burnt itself out, it had blackened the country 'to the Westward, sixteen Miles at least, and the whole breadth of the Island.' (No Indians responded.)

Finally, the ice cleared. At the beginning of July they were under sail once more. Despite the physical and mental buffeting they had suffered, their health improved by eating 'green Vetches', the crew – unwilling, but, without much ado—worked the ship northward to probe for the elusive Northwest Passage beyond Nottingham Island and up into Foxe Channel. At last, on 26 August 1632, they saw before them 'all flat sound Ice'. In council, they decided to turn their helm toward England.

Foxe had preceded them in their northward exploration. He had refused an invitation from James to winter over somewhere in the Bay with them. He went home before the bitter weather sealed him in, and by the end

of October he was back in England. He crowed proudly at returning 'with all my men recovered and sound'. His elation was justifiable. Few could make the same claim after such a perilous journey in lonely, uncharted seas. But if there were to be any glory, it most definitely was not earmarked for Luke Foxe. Instead, the old sea dog was subjected to a hurricane of criticism for not wintering over in the Bay. Naturally, the sharpest barbs were fired by his backers, who had dreamed of astronomical profits on their investments and now found themselves totally out of pocket.

'Foxe has absented himself, whether for shame or (as he pretends) to make his cause perfect,' wrote Sir Thomas Roe angrily. 'All our hopes now rest upon Captain James, who will attempt it [the Northwest Passage] next year, and resolved to lose his life or return with more honour, and though he cannot find it (if it be not there), yet he shall and has gained infinite reputation to have taken this resolution, and not to come home like a sluggard . . .'

After such a public blast at Luke Foxe, Captain James could scarcely do any wrong. His homecoming was in keeping with the romantic ideal of an indomitable explorer emerging from the wilderness to a deafening ovation. Twice the King summoned him to describe his experiences, and he received a royal command to 'make an abstract of my journal'.

Within a few months after his return to Bristol, James published a thrilling book, *The Strange and Dangerous Voyage of Captaine Thomas James*, in which he detailed his adventures. Foxe, who was far less a man of letters than his educated rival, needed until 1635 to produce a relatively colourless, ill-composed narrative with the rather pompous title: *North-West Fox or Fox from the North-West Passage*. However, his tale contained much more of historical and geographical importance.

Payment for their efforts was painfully inequitable. Before his death in 1635, James enjoyed the King's favour. He was made commander of a Royal Navy vessel and gained new laurels in combat with pirates in the Irish Sea. His fame was even more secure, thanks to his adventure-packed book, which went into many editions.

A few weeks after James's death, Foxe breathed his last. He went to his Maker discontented and without official recognition for his efforts in Hudson Bay. His book, much of it a chronicle of his predecessors in high-latitude exploration, did little to assure him continued fame; it was so tedious to read.

The consensus of historians and latter-day explorers, however, is that Captain Foxe was a much better geographer and a more skilful navigator in pack ice than Thomas James. Both deserve equal credit for exploring Hudson Bay's southwestern coastline, and each went against the odds in Foxe Channel.

James was an intellectual; Foxe was just the opposite. James was an extremely capable writer and (as Foxe himself admitted) a competent mathematician. Despite all these advantages, James shows poorly beside Foxe, who kept thorough scientific records and charts of his voyages, and whose only marine mishap was a slightly damaged cutwater.

Nobody has questioned the bravery of either man; that is an outstanding quality of each. But James's judgement remains open to debate on a least two points: his rejection of any crew applicant with previous Arctic experience (and there were such applicants), and his decision to winter over. Although possibly not the wiser in ice navigation, James deserves recognition for fathering the arctic tradition in the English Navy. It is a tradition which reached its zenith in the mid 19th century with Sir John Franklin and the host of men who searched for his ships, the *Erebus* and *Terror*, through Canada's northern archipelago.

Commendation is due to James, too, for unwittingly discovering a trading area which, within a few decades, would produce the Hudson's Bay Company and rival the Far East in its commercial possibilities. Time proved him correct in his doubt that Hudson Bay ever would yield a seaway to the Orient.

Really, Captain James has had more than his share of critics.

In the last century, Sir John Barrow denounced his narrative as 'a book of Lamentation and weeping and great mourning'. Others have regarded it as 'an exaggerated account of the dangers he escaped'. One more charitable writer declared that, if James's story was not exaggerated, it was 'the most remarkable and perilous voyage ever undertaken from which any considerable number of those engaged have escaped to tell the tale'.

A few critics have pointed out that he wintered 15 degrees south of the Arctic Circle, where he was surrounded by forests in a region 'devoid of Arctic characteristics'. However, a modern scientific evaluation coincidentally counters that accusation by reporting that 'a long annual period of solid or floating ice makes Hudson Bay and the adjacent waters distinctly an arctic sea'.

No one can minimize the frightful gamble which Captain James took when he deliberately sank his ship with such poor odds that it could ever be raised to sail again at winter's end. Few will deny that he made errors; many will reply that his mistakes were based on a rare willingness to hazard all and an equally unusual talent for survival. His crew's compliance with his orders, no matter how extreme they must have sometimes appeared, is ample indication of his genius as a leader.

Small wonder, then, that James Bay was named in his memory. Or, that Samuel Taylor Coleridge turned to his narrative as an important source for *The Rime of the Ancient Mariner*.

Those honours, and two 17th century poems by Thomas Beedome which salute Thomas James as a 'Matchlesse Commander' and a 'Heroicke Soule', should be sufficient to set at rest his detractors' tongues. ◆

TANNING HIDES

THE FOLLOWING BRIEF DESCRIPTION of the old Indian method of preparing leather, comes from the papers of Canon Edward Ahenakew, who was born in 1885 on the Sandy Lake Reserve, west of Prince Albert.

He was named for my uncle, Edward K. Matheson, who had come in 1877 from the Red River Settlement, to assist in the mission work at Sandy Lake, and who was the first divinity graduate of Emmanuel College in Prince Albert. He and his brother, John R. Matheson, who was my father, devoted their lives as missionaries to Indian work in the Diocese of Saskatchewan; and they won Edward Ahenakew's deep respect. The friendship between the Matheson and Ahenakew families has continued, and when Edward Ahenakew died in 1961 his niece, Katie Ahenakew, collected his papers and sent them to me in recognition of that friendship and my interest in western history.

The name Ahenakew has no identifiable meaning. It was the personal name of Edward Ahenakew's grandfather, who was the brother of Chief Ahtahkakoop (Star Blanket) and whose wife, Keeskanakwas (Cut Sleeves), was the sister of Kamekosit Peyao (Red Pheasant) and of Wuttunee (Tail Feathers), from the Battleford country. On the other side of the family, the grandfather was known as Kosekosewuyanew (Ermine Skin) for his uncommonly fair skin, and he came from the Bear Hills, south of Edmonton; his wife, Notokwawi-kumik (Old Woman's Lodge) was from the Battleford area, for she was the sister of Chief Poundmaker. Edward Ahenakew had every reason to be proud of his lineage, and to identify himself as a Plains Cree.

His first teacher in the mission school on the Reserve was his uncle, Louis Ahenakew. At the age of eleven he was sent to the boarding school in Prince Albert that had retained the name of Emmanuel College; he was a student there until he passed his matriculation examination. He was appointed as teacher in a mission school and then was accepted at Wycliffe College in Toronto to begin his studies in theology, which he completed in Saskatoon when Emmanuel was re-established as a Theological College at the University. Upon ordination, he went to the Anglican Mission at Onion Lake to assist the Reverend John Matheson during the last years of his life.

After John Matheson's death, our mother, Dr Elizabeth Matheson, established her family's home in Winnipeg, but our association with Saskatchewan was never broken, nor our friendship with Edward Ahenakew. When work upon them is completed his papers are to go to the Saskatchewan Archives.

RUTH MATHESON BUCK

Mah tah he can

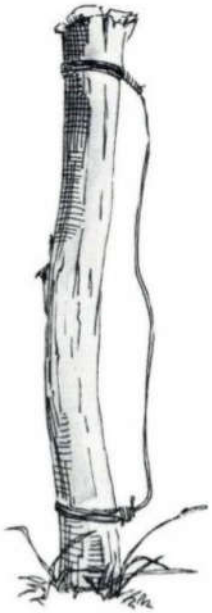
EDWARD AHENAKEW WROTE:

As a boy, I used to watch my grandmother, Keeskanakwas, making leather, and she was one of the best in that old Indian skill, an art which belonged to the women and to which men paid little attention.

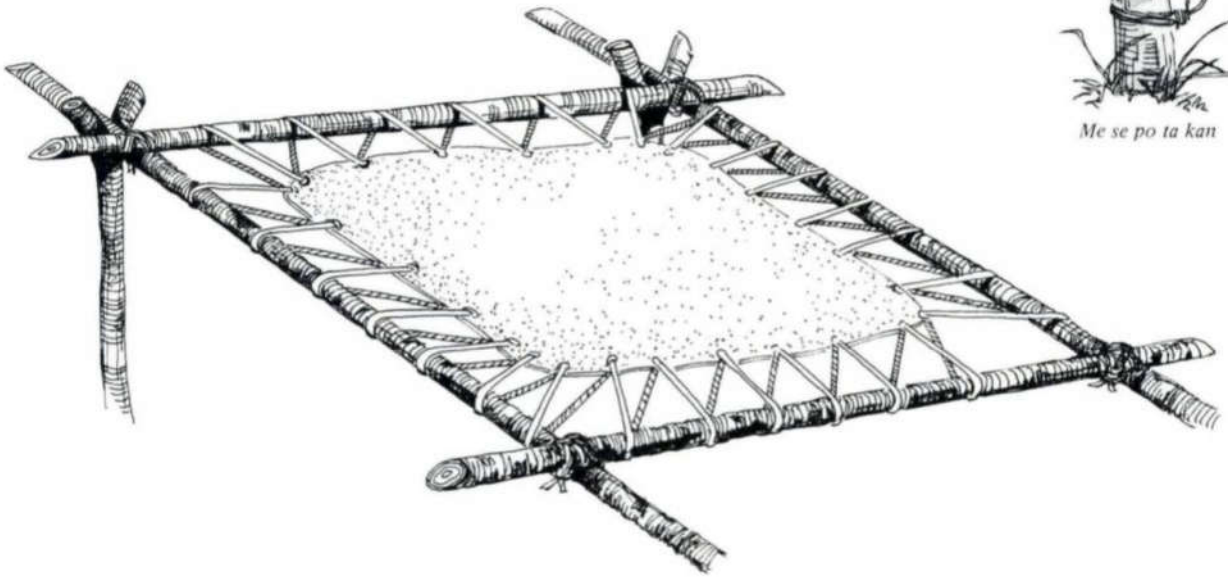
My grandmother would take the hide and make holes at intervals all around the edges, trimming where necessary. Then she would tie four long poles together so as to form a square that was larger than the hide to be tanned; and with a line made of leather cut into a long strip, she would lace the hide to this frame using the holes along the border as eyes. When it was securely stretched, and one end propped up, she would take up the instrument called *Meh keh kwan*, which was made from one of the long bones of a buffalo. One end of this was flat, and filed to a keen edge. Through a hole drilled in the other end, a line was tied, with a loop that fitted around her forearm; and she would hold this end up and pointed away from her so that the line was taut and the

Sketches by Jim Carson based on drawings in the Ahenakew papers

Meh keh kwan



Me se po ta kan



sharpened edge beneath her hand was slanted towards her as she scraped the flesh from the hide. The looped line relieved the strain upon the muscles of her hand and helped to keep the strokes even and precise, for one false stroke could injure the hide.

When the inner side of the hide was scraped clean, the whole frame was reversed, so that the hair was uppermost. The instrument to remove the hair was called *Mah tah he can*, and it was usually made of deer antlers, and shaped after the principle of a hoe. The working end had a nick or groove in it to allow a sharp stone or piece of metal to be tied on. My grandmother would grasp this instrument with both hands, her right over the part which formed the angle, her left farther back on the handle; then she would climb onto the hide and, beginning at the top part, scrape away the hair and a thin layer of hide. It always seemed to me that her performance was much like the motion of a horse galloping carefully over ground full of badger holes. She had to take off just so much of the hide with the hair, no more and no less; and while she completed the work swiftly, the action was not smooth, for she would arrest or lengthen a stroke in its course.

If the work was being done in summer time, the hide was then dried in the sun; in the winter, it was frozen. The women always held that freezing gave the better results; (why, I do not know). The next step, however, was the application of the brain of some animal which was rubbed carefully into both sides of the hide. I cannot say what purpose this served, for men cared not for such matters. [It was to soften the hide.]

The hide was then removed from its frame, put in hot water, and left until it was saturated through and through, and quite soft. When my grandmother had stitched the sodden ends together, something after the shape of a skirt, she would slip this loop over a firm post, insert a length of pole, and twist the hide until the water was wrung from it. Then she would unwind it,

remove the rough stitches and with the help of another woman they would pull the hide this way and that between them, stretching it as much as they were able to in every direction.

Then it was ready for the final softening process, using the *Me se po ta kan*, a firmly stationed post with a length of strong wire looped securely to it. Through the space between the wire and the post, my grandmother would push the hide, and then pull it back and forth over the wire with all her strength, in a sawing motion, her hands working alternately. Every square inch of the hide would be rubbed and pulled in this way until it was as soft and pliable as possible and ready for the final step in the process, which was smoking.

This time, my grandmother would stitch the leather into the shape of a little tipi, and pitch it above a hole dug in the ground, over a slow fire made from a dry decaying log that had lain a long time half-covered by earth. She would watch most carefully, so that the skin was never burnt, only well smoked and lightly coloured; and then she would turn the small tipi inside out, and repeat the process until she was satisfied that the leather was ready to be made into moccasins or other apparel.

Moccasins made from it adapted themselves to the shape of the foot, for the leather was soft and somewhat elastic, and when properly tanned would not harden after being wet. No other footwear gave such ease and comfort in the snow, combining lightness and warmth; and beauty was added to many of the articles that our women made from that soft leather by embroidering geometric designs with porcupine quills or dyed horsehair or, later, with beads. ◆

TOBACCO PIPES of the Western Eskimos

Wooden pipe with removable section at base for cleaning inside and rawhide loop for carrying.

BY GLEN SHERMAN

Illustrations are items in the museum at the University of Alaska where the author was studying anthropology.

TOBACCO travelled 15,000 miles to reach the early people of Alaska and Canada, but it started only 1,500 miles away. American Indians to the south had cultivated tobacco before the arrival of Columbus in 1492. Yet the practice of smoking was introduced to Eskimos by their trading relatives the Chukchi in Siberia. Evidently, the use of tobacco spread not northward but eastward all the way round the world from America to Europe, Africa, Asia and finally Alaska.

Every year the Chukchi crossed the Bering Strait to trade with the Eskimos of Alaska. One year they brought tobacco. From that time, probably in the early 19th century, the people of Alaska took so strongly to tobacco that it immediately became one of the most important trade items of the North.

Nearly every adult Eskimo used tobacco. Some smoked, some snuffed, and some chewed the narcotic plant with its seductive addiction. Men usually employed all three methods: women more often snuffed or chewed the pulverized leaves. Even children were introduced to tobacco and at no late date. C. E. Whittaker in his book *Arctic Eskimo* tells the story of a young twentieth century Eskimo woman and child he observed: 'Niki, a woman of the [Mackenzie] delta Eskimo, was nursing her son of twenty months or two years, and enjoying her pipe meantime. The youngster dropped the breast, took possession of his mother's pipe for a few draws, then returned to his food supply. No one accounted it as strange or hurtful.'

Tobacco pipes were also introduced to the Eskimos by their Siberian cousins. But although the pipes came directly from the Chukchi, their appearance and the method in which they were smoked seem to indicate strong Chinese and Japanese influences. Probably, the Chukchi themselves learnt of tobacco from these oriental peoples.

The pipes pictured here are from St Lawrence Island below the Bering Strait. They were made by hand from a variety of materials, including walrus tusks, wood, and lead.

Eskimo pipes varied not only in materials but in design as well. Outdoors the men carried small pipes in a fur bag lashed to the belt and tucked inside the clothing. The bowls of these small pipes were made of either stone or antler. The pipes used indoors were longer, thirteen to eighteen inches, and made of metal, wood, or walrus ivory. They were used mainly by the men but at times by the women. These pipes were more elaborately

An all-ivory pipe with etched decoration, collected by Otto Geist.

Left, (top) wooden pipe with very worn ivory bowl, collected in 1927. Sealskin is used to lash the two halves of the stem and the ivory pick is for cleaning the bowl. (Lower) wooden pipe with copper bowl and lead mouthpiece. Rag plug removes for cleaning inside and carrying loop is an old shoestring.

An unused Siberian style pipe made from a mold by Albert Kulowiyi of Savoonga. The lead and walnut pipe is 8¼ inches long; tobacco pouch, caribou fur, and ivory cleaner are attached with leather thong. At left is an eight-piece wooden pipe mold used by Kulowiyi.

decorated and many had etched scenes that depicted whale hunts or other facets of Eskimo life. All were hand-ornamented in some way.

The pipe had a metal picker attached to the stem by rawhide or sinew cord. This was used to clean the bowl and to tamp down the tobacco.

Often the stem, or body of the pipe, was made from two separately formed pieces that were lashed together with rawhide or sinew cord. This construction enabled the Eskimo smoker to disassemble the pipe, clean out the tobacco residue, and reassemble the stem very easily. The nicotine in the residue was then mixed with chewing tobacco to give it a more narcotic effect. Pipes that were not split in this way had small trap door openings in the bottom of the stem for the same purpose.

The bowl, used to hold the burning tobacco, was nearly always metal. Copper and lead were the most common materials. To form these bowls molten ore was poured into wooden molds, cooled, and removed from the mold. Then they were lashed on to the pipe stem with the same rawhide used to hold the two parts of the stem together.

The bowls of Eskimo pipes were generally tall and slender when compared to modern pipes. The inside diameter sometimes measured only a quarter of an inch and rarely exceeded three-quarters of an inch. They were usually one-and-a-half to two inches tall.

The reason for the tall slender bowl in Eskimo pipes was the smoking method used. First, the native would pluck from his clothing a small amount of fur where its absence would not be noticed. He would wad it up and place it at the bottom of the bowl to prevent the finely cut tobacco from clogging the stem. Then two or three pinches of tobacco were put into the bowl. A small piece of tinder was lighted with flint and steel and placed on top of the tobacco. Next, two or three short sharp draws were taken to light the tobacco completely. Only after all this was he ready for a smoke. Now he would empty his lungs and inhale completely through the pipe, hold the smoke for a few seconds, and exhale slowly through nose and mouth. In this way he derived the greatest possible benefit from a single draw.

However, a single draw was all the average Eskimo could stand. His tobacco was so strong that he mixed it with the ash from willow bark to lessen its strength, and even then it was extremely potent. Thomas Simpson, exploring the arctic coast in 1837, noted that the grand article in demand by the Eskimos at Point Barrow was tobacco which 'they call tawac, or tawacah, a name acquired of course from the Russian traders. Not content with chewing and smoking it, they swallowed the fumes till they became sick, and seemed to revel in a momentary intoxication.' The custom persisted for John Murdoch, naturalist and observer with the Point Barrow

Birch-bark tobacco boxes, on the upper one the rawhide is used to pull the top open.

Expedition in 1881, wrote: 'The smoke is very deeply inhaled and allowed to pass out slowly from the mouth and nostrils, bringing tears to the eyes, often producing giddiness, and almost always a violent fit of coughing. I have seen a man almost prostrated from the effects of a single pipeful.'

Significantly, the ratio in which this disquieting tobacco was mixed with the ash of willow bark was the same as that used by the Chukchi: two parts tobacco, one part ash. This mixture was carried about in small tobacco pouches made of fur and tucked into the clothing or hung round the neck.

Sometimes the itinerant Eskimo would discover that he had plenty of tobacco but no pipe. In such a situation he would merely find an appropriately shaped willow stick and form his pipe from this. The extemporized pipe was crude and ugly but it served its purpose. When the Eskimo finished his smoke he would simply discard the worthless pipe and continue on his way. Many of these hollowed out willow branch pipes have been found in places away from any Eskimo village.

Pipe smoking continues among many of the Alaskan and Canadian Eskimos but with a much greater European influence. Their harsh tobacco has been replaced by the milder European and American blends. Pipe shapes and materials are more like those in other parts of the world, and they are smoked in the conventional modern manner. Elaborate pipes of walrus ivory and lead are now made only as special gifts to friends and are more decorative than useful. ◆

Wooden mortar and pestle used to mix tobacco, sometimes with ash, collected in 1927 from Nelson Island.

A heavy pipe of lead and walnut made by Massayou; the tobacco pouch is caribou skin and the strip of skin is used to clean the pipe bowl. The wooden pipe at right, 10½ inches long, has a two-piece stem lashed with seal skin which also provides thongs for attaching ivory bowl and cleaner, caribou fur and skin pouch.

LAST RESORT

By W. O. Douglas

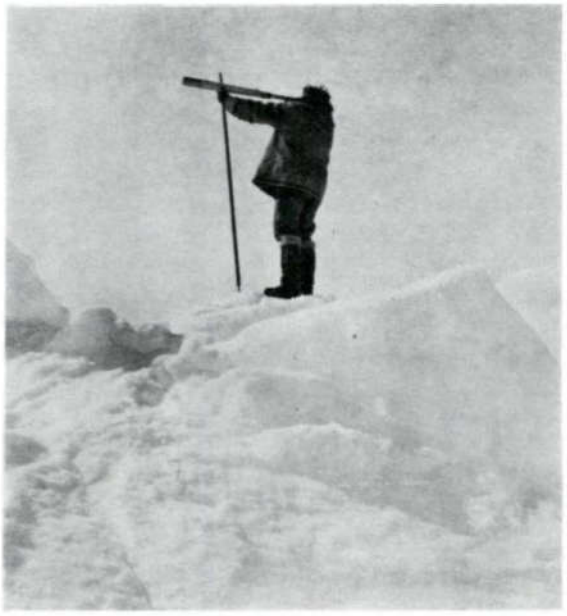
IT WAS IN 1925 that I was sent by the Hudson's Bay Company to the west end of Baker Lake to choose a site for a post and build it. This would replace the earlier one on an island to the south, near the Kazan River. The location is about 180 miles as the raven flies from the west coast of Hudson Bay and is reached through the long, narrow, sea-arm named Chesterfield Inlet.

Late one evening, during my second winter there, two dog-sleds arrived from Yathkyed Lake – or Seecooliguak, to give it the Eskimo name – over 100 miles away, bringing native families to trade their first catch of white fox pelts for the season. As was the custom, the Eskimos accompanying the sleds were taken into the native kitchen and served tea, biscuits and molasses, which they enjoyed sitting in a circle on the floor. The head of each family was also given tobacco and matches. During this 'mug-up' my post servants, and any other Eskimos who might be visiting the post, would drop in to chat and smoke with the new arrivals, exchanging news since they last met – quite often a year or more previously. As a matter of politeness and good business I would visit the kitchen after they had finished eating and enquire of their welfare in general: if they had had a good summer and fall caribou hunt, and been able to cache sufficient meat to keep them well supplied during the long cold winter, and collect enough suitable caribou skins for warm winter clothing.

A good fall caribou hunt means much to these inland people – food, clothing, sinew for sewing, fat for their soapstone lamps, dog feed, and time to trap foxes. Without these the men's lot is not a happy one. Few caribou remain in this district during the winter, and when their

Douglas in 1917, wearing the winter travel clothing of the R.C.M.P. He joined the Company in 1923, serving at Repulse Bay and Baker Lake. In 1933 he transferred to Winnipeg to establish and supervise the experimental fur farm operated by the Company at Bird's Hill.

W. O. DOUGLAS



L. T. BURWASH

summer and fall hunts are a failure they are forced to jig for fish through the ice and wear last year's clothing, which is soiled and thin, the warm hair having long since worn off.

On this particular night I noticed that the dogs were in good condition; the men, women and children well clothed, yet I sensed all was not well. It was not my practice to enquire immediately on arrival how many fox pelts they had; this would become evident when they came to the store to trade next day, and if they were short they might feel embarrassed. I tried to keep the party jolly, but having little success I returned to my quarters and sent for the interpreter. He told me that the reason for the quietness was not that these Eskimos were hungry, or that they had few pelts to trade. Trapping had been good, but on their way in they had passed a camp where all but one person had starved to death. The survivor, a young girl, possibly in her late teens, was now subsisting on the remains of her relatives.

I took this problem to bed with me, and lay awake until well into the early hours of the morning, trying to figure out what was best to do. Two things I knew: without quick action the girl was doomed, as no Eskimo would go near her, nor would they allow her to enter their camp should she attempt to do so, which was most unlikely as she would be afraid. The other consideration was time. I could send word to the R.C.M.P. at Chesterfield Inlet, six to eight 'sleeps' distant, and let them handle it, which would mean at least three weeks to a month before the girl could be rescued, and more if it so happened the sergeant in charge had all his men and dogs away on patrol. If I were to go direct to the girl, I might make the round trip in eight to ten 'sleeps'.

In the morning I called my post servants, three good men, with long association with the Kabloona. I outlined my plan to take two of them, with two dog-teams – one of the men to take along his wife – and we would bring the girl back to the post. My plan was not received with any great enthusiasm. They told me plainly it was contrary to their belief to have anything to do with those who had eaten human flesh. I was well aware of this, but hoped I might be able to persuade them to guide me. I told them the girl could in no way be held responsible for the deaths from starvation at their camp and her life should not be sacrificed on this account. At long last the wife of one of my men said she would go if her husband would. Not to be outdone he agreed, then the other Eskimo fell in line. Neither the woman nor I divulged that I had previously promised her a plaid shawl she greatly admired in the trade store if she would go along. Both men had good dog-teams of eight dogs each, and we were most fortunate in having sufficient dog feed for the return trip.

During the morning I traded with our visitors and then made all necessary arrangements for our trip. The visitors had decided to rest for a day or so before taking

W. G. DOUGLAS

The rescued girl ready for her move to Chesterfield Inlet.

a different route home. I was not surprised or disappointed; on the contrary, I was well satisfied, as we were going into their country and if we travelled together my Eskimos would not wish to do anything to offend them in their beliefs. This could well result in the failure of my efforts.

Next morning we were up bright and early. With both sleds lashed we were about to get the dogs up on their feet, and the whips straightened out, when the oldest inhabitant – a very old toothless woman, there to see us off – started calling on the spirits in a very loud voice to prevent our going on such a wicked journey, which she predicted would end in death for us all. This was the last thing I wanted at this time, as the younger Eskimos paid great attention to what their elders said, particularly to this old woman whose words were taken seriously by this tribe. I could see my people were at the wavering point and I had to think of something quickly. I took the old lady aside and asked her, if her predictions came true and I did not come back, where she would get her tobacco and matches? To ensure her supply she would be wise to arrange with the spirits for us to have a good trip, then on my return she would collect a pound each of tea and tobacco, also a packet of matches, and if we had a very good trip, a little flour, and molasses.

This tempting offer was too much for her. She put on a good show for the benefit of those present and ended by saying the good spirits were now stronger than the bad, and we would have a safe trip, but the girl would be gone and the spirits satisfied.

W. O. DOUGLAS

The old were powerful and younger Eskimos paid careful attention to their words.

With this we got off to a smart start and made good time. Our loads were heavy, but the going was good and our dogs were fresh and in splendid condition. We were carrying dog feed for both ways, feeding and making a cache each night, the latter to be picked up on our return. With good going and good dogs all members of the party were able to sit on the sled from time to time. Under these favourable conditions travelling was most pleasant. Alas, all too good to last.

When we were making our third igloo, a ground drift started up and during the night we heard the wind blowing. On looking out in the morning we found it blowing almost a blizzard, and as we were now in the vicinity of our objective we needed clear weather to be able to pick out the igloo. We decided to remain in our snowhouse and hoped that the storm would not develop into a three-day blizzard, as is often the case in the dead of winter. Being stormbound in an igloo is always monotonous and sometimes when rations are low and dog feed non-existent it can be very unpleasant. In this respect we had little to worry about; our ration supply was good and we had sufficient coal oil (kerosene) to use the primus stove to make tea and fry bannock when we felt the need. Our dogs, being in good shape, would not find the storm too uncomfortable. They would be under the drifting snow, curled up with their noses tucked under their tails and, unless disturbed, quite happy to sleep out the blow.

Within the snowhouse, to help pass the time, we played cards. I noticed the usual lightheartedness of my companions was missing, and heard frequent references made to the old woman's blessing, or otherwise, at our departure. This confirmed my belief that they would be quite happy to find the girl absent or even dead.

During the second night the storm abated and at the break of day we were on our way. Notwithstanding the fact that neither of my men had been in this district before and were depending on finding the igloo from directions given by our visitors at the trading post, I never questioned their ability to do so. From previous experience I had every confidence in the Eskimo finding his way in the arctic barrenland.

I now noticed that as we crested each rise the telescopes came out and a long study was given to the lay of the land ahead. After the recent storm it would be difficult to locate an igloo inhabited by one person with no dogs running around or travelling gear on the outside. At this point our dogs decided to help. On coming over a crest they took off at a gallop into the valley below. We jumped on the sled, looking round for the cause, which could be a startled fox running for safety, caribou close by, or the smell of a native camp. The new snow was deep and the dogs soon tired of their spurt of speed and were quite ready to obey the command to stop.

With the aid of the telescope, focused in the direction the dogs were looking, we picked up what appeared to me to be a hole in the snow with some black object close by. That object did not remain there long, but disappeared into the hole. We continued for some distance by sled and then decided to approach the igloo on foot. My companions were now a bit hesitant as to which one should accompany me to the igloo. This was necessary as I did not have sufficient command of the language to go alone. Again our woman came to the fore and offered to accompany me as interpreter. The approach was not without the possibility of danger as the girl no doubt would have a rifle, and under existing conditions might be tempted to use it. We stepped out together carrying nothing, and I kept my arms well clear of my sides to assure her, if she were watching, that we came as friends.

On arrival at the hole we could see nothing. My interpreter called and got no reply. If the person inside was not going to answer, to enter might be asking for trouble. We called again, louder and louder, saying we were there as friends and had come to help her. At last she came towards the mouth of the hole, from the rear of what appeared to be a long snow tunnel. At first she made no answer when my interpreter addressed her, but after a while she came into the light. I expected to see my interpreter run for the sleds, and I would not have blamed her, as the sight before us was enough to make anyone run. The girl's caribou clothing, what there was of it, was beyond description; how it stayed on her body was a marvel. It was difficult to tell which was naked body and which was garment; all was filthy dirty and as black as the ace of spades. Her feet were wrapped in equally dirty strips of blanket. Her hair was badly mat-

ted and very dirty. A more terrible sight, or smell, of a human being was hard to imagine.

Expecting something along this line we had brought with us a change of garments and dressed deerskins for bedding. Now the question arose: where to make the change, as my interpreter flatly refused to enter the tunnel? I went back to the sled to get the change of clothing and suggest to my men that they build a small igloo for the wife and the girl in which to make the change of clothing. These Eskimos were experts in the art of igloo building and had one ready in no time. I put in the change of clothing and went back to the sled. It took some time for our woman to persuade the girl to come out and make the change. We at the sled had just about given up hope when the girl emerged from the tunnel and bolted like a startled rabbit into the new igloo.

While the change was in progress I thought I would look around; but my men had no wish to accompany me. I took a look down the hole into the tunnel and decided not to venture in — dirty, dark, and very obnoxious. With the snow knife I was carrying I cut out a block in the roof of the main snowhouse, at the end of the tunnel. After getting my sight adjusted to the dim light within, what I saw was most revolting: human bones filled a large part of the filthy interior. I replaced the snow block, then cut a couple of new blocks and closed the entrance to the tunnel. I did not want the girl to re-enter this terrible place with her clean clothing.

We hoped all was going well in the small igloo. It was impossible at this time to provide any kind of bathing. Our woman told us later that she had rubbed the girl down with snow, the native way of washing when travelling, usually confined to the hands and face. At last they emerged, the girl following the woman very closely and immediately looking towards her igloo; she seemed surprised at seeing the entrance closed. We now lost no time in starting for home, everyone anxious to put as much distance as possible between ourselves and the gruesome igloo which housed such a tragic story.

On our return trip to Baker Lake the weather was kind, we picked up our cached dog feed each day and made very good time. At each camp my Eskimos built a small snowhouse, off and entering into the larger one, for the girl. Even so, notwithstanding the snow bath and clean clothing, I was glad each camp we made was one nearer home.

The girl was very shy but most anxious to be of assistance and quite able. I afterwards learnt I was the first white man she had seen; also she was the only survivor of two families, some twelve souls, all of whom had died from starvation, in the first stages of which they ate their dogs, then their skin clothing, and eventually turned to cannibalism. This girl was the last and she had been alone for some time.

By keeping a lookout from the top of the warehouse with a telescope, the people of the post had learnt of our approach, and soon we saw them from afar off, coming out to welcome us.

W. O. DOUGLAS

Eskimo man and wife with sled loaded for winter travel.

I arranged for the girl to sleep and eat in the kitchen used by the Eskimos and put her to work cleaning fox pelts. After she became accustomed to her environment a bath was arranged and another change of clothing, then she became as presentable as most of the people around camp.

I wrote a full report to the Officer Commanding the R.C.M.P. detachment at Chesterfield Inlet, and later in the spring when on patrol he visited Baker Lake. We discussed the girl's future, agreeing she would have a better chance in a district where she was not known, and he decided that he would take her back to Chesterfield, where meantime she could assist in preparing the skins for winter clothing for members of the Detachment. The Officer Commanding heartily endorsed what we had done and asked me to render an account covering all expenses. In Ottawa the Commissioner was in full agreement with the O.C., Chesterfield, and wished him to express his appreciation for the timely action taken which he had no doubt saved the girl's life.

The girl prospered with the police at Chesterfield, and after two years married a Padleimiut man, a good hunter and provider. With the arrival of spring the warm sun would melt the haunted igloo and the wolves and foxes would move in and clean up the debris. All that would be left to mark the spot of this tragedy would be a rifle, a stone lamp and a few old cooking pots, none of which would ever be removed by the people of the district. ◆

NORTHERN BOOKS

THE LAST SPIKE
The Great Railway 1881-1885

By Pierre Berton. McClelland & Stewart, Toronto, 1971. 478 pages. $10.00

Reviewed by George F. G. Stanley

Reading Pierre Berton's two volumes on the early history of the Canadian Pacific Railway, is like watching a John Wayne western on the screen. In both instances we see the dauntless hero – or heroes, in the case of the Berton books – twirling their carbines, their transits or their cheque books as the case may be, in the devil-may-care manner we have come to associate with the men of the last best west. Adventure, audacity, courage, colour, true grit and grim determination, all the old virtues are there, in Berton and in John Wayne, on the printed page or on the film. Take your choice.

Pierre Berton's first volume, *The National Dream*, set quite a pace. In that book, Pierre the magnificent, galloped along, brandishing his adjectives like John Wayne his six-shooter, clearing the incredibility gap and coming up with what his publishers called an 'epic tale'. If by 'epic' they mean that the subject matter is in the heroic tradition, then I would agree. The story of the Canadian Pacific is an epic tale, full of sound and fury, signifying a great deal.

What a cast of characters Berton and his research assistants have had to work with: Hell's Bells Rogers, the eccentric surveyor who was determined to and did leave his name imprinted on the map of North America; Andrew Onderdonk, the unassuming American whose name is not to be found in a Canadian Atlas and who is largely remembered because he flouted Canadian opinion by bringing Chinese coolies to Canada to build the railway through what John Macoun called 'the perverse grandeur' of British Columbia, because they were cheap and expendable; George Stephen, the emotional Scotsman who, along with his fellow Scot, Donald A. Smith, committed his personal fortune in a desperate gamble which the cautious Canadian, Edward Blake, was certain would never yield enough to pay for its axle grease much less to discharge its debt to the Canadian Government; William Van Horne, the telegraph operator, the amateur artist, the bon vivant, the master of business administration, the greatest railway man in our history, or in the history of North America for that matter, who pushed the whole project through to completion, despite geographical obstacles, financial hurdles, political opposition, and the 'malicious venom' of the *Toronto Globe*. These are the lead characters in the story. But there is also a whole host of minor supporting figures, Indians, priests, policemen, surveyors, politicians, land sharks and entrepreneurs, men whose names dot the Canadian Shield, the prairies and the canyons of the Pacific coast province. Men like Crowfoot, Lacombe, Steele, Cambie, Langdon, Shepherd, Secretan, Schreiber, Revelstoke, Rosser and others. A writer would have to be a dull dog indeed to be unable to write lively prose with men such as these running through his pages. Canadian historiography is full of dull dogs; fortunately, Berton is not one of them.

This second volume of the C.P.R. history, *The Last Spike*, is, in my view, a better book than the first. *The National Dream* had too much the quality of a western movie. The tale was rather too heroic, and the prose rather too much in literary technicolour. *The Last Spike* is calmer, more subdued. And, in consequence, it is more convincing. That doesn't mean that *The Last Spike* loses momentum. It doesn't. It carries the reader through the years between 1881 and 1885 at a good pace. And they were exciting years too, the years that witnessed the final location of the railway line through the Kicking Horse and the Rogers passes, and the laying of the track over the prairies, the mountains of British Columbia, and the rocky shoreline of Lake Superior. They were years of constant hazard to the enterprise from mounting costs, political indifference and hostile intrigues. The story ends with the driving of the last, not so golden spike at Craigellachie.

Berton does not limit himself to the railway story alone. In *The Last Spike* we get illuminating glimpses of the Winnipeg boom, the founding of Regina – 'Regina . . . is enough to blight the new city before it gets out of its swaddling clothes. If we have to put up with such outrageous nomenclature, it would have been better to stick by the old stand-by, Pile of Bones', so wrote the editor of the Manitoba *Free Press* in 1882. Can you imagine Regina's football team of 1971 called The Pile of Bones Rough Riders? – and the early days of Sudbury, Brandon, Calgary, Revelstoke and Vancouver. Even Louis Riel comes into the story. It was the outbreak of the North West Rebellion which proved to Macdonald and to Canada that the railway was worth another loan. Surely the present management of the C.P.R. contributed to the erection of the statue to the Métis chief who, albeit unintentionally, saved the railway from bankruptcy in the spring of 1885, by providing it with the passengers, freight and publicity it so badly needed.

In outline, the story the author tells is familiar. Let us admit that he tells it well and that he gives emphasis where emphasis is due, namely the fact that the line was built as a Canadian line and remained a Canadian line. It is something of a paradox that Van Horne, the American, was more Canadian than any Canadian. 'I am a Chinese-wall protectionist', he said, 'I don't mean merely in trade. I mean – everything. I'd keep the American idea out of this country.' Do we have anybody in Canada, politician or entrepreneur, prepared to say the same thing today? Or are we overrun with quiet diplomatists and branch plant vice-presidents? And it wasn't just the Americans Van Horne distrusted. There were those Englishmen like Joseph Hickson, the general manager of that British railway, the Grand Trunk, who did everything he could to undermine the credit of the Canadian Pacific in the financial houses of London. Stephen thought it 'simply damnable that they should be allowed to live and pursue such hellish work.' Romantic royalists they may have been, and ready to accept peerages from Her Majesty, but there was enough of the old Scottish stubbornness in Stephen and Smith to prevent

the Englishman's intrigues from succeeding. Stephen and Smith became Their Lordships; Van Horne declined a peerage, but accepted a K.C.M.G.

The Last Spike, I believe deserves something better from the publicity boys than a statement that it reads like a novel and that it is an 'incredible' story. *The Last Spike* is good rousing narrative history; it is not a novel. And because it is history I expect it to be credible, not incredible. Of course the nitpickers will always find a few errors in any book – 'Rodman' for Rodmond Roblin and an unnecessary remark about the pronunciation of 'Métis' ('mettisse', Mr Berton, is the correct pronunciation; there is no need to be more French than the French by calling it anything else) – but errors like these (and a few others) are of small moment. Little scratches, they do no harm either to the prose or to the content. And, in spite of its claim to 'incredibility' the story remains wholly credible. Like John Wayne, Pierre Berton can combine credibility with action. He can hold our interest to the end. Oddly enough, I do find John Wayne credible – at least some of the time: Pierre Berton I have found credible – most of the time.

There are probably few Canadians, in these days of television, who are not familiar with the face of Pierre Berton. Because we have seen so much of him we have tended to grow weary of him. He is always so smug in his comfortable pew on the television screen. Over-exposure can be harmful even to the best actor and Berton's banalities and posturings leave me convinced that he is a better writer than he is an actor. For that reason I have greeted the two volumes on the Canadian Pacific Railway with satisfaction. The tarnished Berton image once more takes on a little lustre. I welcome the return of Berton of the *Klondike.*

Professor Stanley, Director of Canadian Studies at Mount Allison University, is the author of many notable historical books.

PEOPLE AND PELTS

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SEASONS OF THE ESKIMO

A Vanishing Way of Life

By Fred Bruemmer. McClelland & Stewart, Toronto, 1972. 10" x 13", illus. $16.95

Reviewed by Malvina Bolus

This book is of such overwhelming pictorial impact that the excellent text may be overlooked. The pages of prose are set in type that is unattractive and singularly tiresome to read. Had the lines been spaced (and there is plenty of room on the half empty pages) readability would have been improved but would still not be good. This is a great pity because the content is interesting and well expressed. Behind it is extensive research into prehistory, history, exploration, anthropology which, combined with the author's personal experience over the years of living and hunting with the Eskimos in many parts of the Arctic, present a well-rounded and telling story.

It is the story of the era of dog-teams and snow-houses, of caribou-skin clothing and seal hunting, things that now almost everywhere belong to the past but are here preserved for the future in word and picture.

In following the Eskimo through the seasons, Bruemmer brings together an amazing amount of information from the prehistory of Eskimos to the life story of plants. He writes of the culture reflected in a language that has a hundred words for snow, 'many words of welcome, but none for goodbye'; of a society of equals claiming no territorial rights; of child care 'a lot of love and little discipline'; of the last camp Eskimos 'specks of isolated humanity'; of reaction to religion where 'a well-heated hell' must surely be a desirable place; of people who do not believe in remorse against anger 'for it is sufficient for one person to feel annoyed'; of games and songs and dancing; of the effects of the warming trend in the Arctic, and the lasting scars of torn tundra; the aurora 'silent and superb'. Summarizing, Bruemmer says: 'if their former life was physically harder, it was emotionally more secure than the Eskimos' present existence between a dead past and an uncertain future'.

These data have obviously been checked with care for they range into the area of specialized studies and there seems to be little to question. When fashioning bows, antler was sometimes used as well as driftwood, though it was probably an even worse material. And though basically a society of equals, there was surely a distinction about the angakok or shaman that set that individual somewhat apart.

The photographs, nearly half of them in colour, are magnificent and for the most part well reproduced. Their arrangement is not always ideal for some which should be separated are run together with confusing effect, and in striving for size of a double-page spread the fold in some comes at a vital spot, as in the polar bear at bay. The odd caption has gone astray; the woman sewing a skin is said to be hanging up slabs of meat.

Nevertheless, Bruemmer's splendid photographs are presented in a manner that does justice to his skill and the great appeal of the work of this doubly gifted yet very modest man who is an excellent photographer and a good and conscientious writer.

Perhaps because it was printed and bound in Italy the covers of this book are not adapted to the dry atmosphere in which the Canadian coffee table reposes for they do not lie flat. Except for size, this is not really a coffee table book but one to be looked at again and again, and to be read. Do not miss *Seasons of the Eskimo* for its like will not come again.

GLACIER ICE

By Austin Post and Edward R. LaChapelle. University of Toronto Press, 1971. 110 pages, illus. $20.00.

Reviewed by R. E. Longton

At first glance the large format (11 x 14 inches), sumptuous binding and profusion of black and white photographs suggest that this is another in the current wave of lavishly produced books on the natural environment that delight the eye but provide little for the mind. The present volume, however, combines with an effective pictorial representation of the splendours of glacial scenery a concise explanation of the basic factors controlling the formation and flow of glaciers.

The authors are professionals in appropriate fields. Austin Post is a hydrologist with the United States Geological Survey, while Edward R. LaChapelle is an associate professor

of geophysics at the University of Washington. Their brief text describes how glacier ice forms where annual snowfall exceeds melting in high-altitude accumulation areas, and flows inexorably downwards to ablation zones where the glaciers suffer a net loss through melting and other factors. Explanations are then offered for the development of crevasses, of horizontal wave patterns and vertical layering in the ice, of medial moraines, those orderly highways of rock debris marching down the centre of many major glaciers, and a host of other features relating both to the glaciers themselves and to the country modified by their passage. We learn, too, of associated phenomena such as ice worms, organisms that spend their whole life cycle within glacier ice feeding on algae and wind blown pollen, and performing daily vertical migrations in response to fluctuations in the intensity of sunlight. The essentials of glaciological jargon are explained, and for added ease of reference a glossary defining 74 of the technical terms is provided. The majority of the 130 figures are photographs, each illustrating a specific feature and integrating closely with the text. Many are the result of Post's aerial photographic surveys along the North Pacific coast of North America and into the interior ranges of Alaska. Indeed, the emphasis throughout is on alpine regions, although the characteristic features of sub-polar and polar glaciers are briefly considered.

The book has a few minor faults, often the result of sacrificing clarity for brevity. For example, the early definition of a glacier as 'a mass of perennial ice on land showing glacier flow' will hardly please the perfectionist, and following this it is rather disconcerting to read, two pages later, of 'small, stagnant glaciers'. Nevertheless, the use of a minimum of written description closely related to a wealth of carefully chosen illustrations should prove to be a most effective approach to presenting the fundamental concepts of glaciology to non-specialists in a palatable form, while the splendid photographs will doubtless be cherished alike by specialists and by others who simply love the mountains.

Field work has taken R. E. Longton, assistant professor in the Department of Botany at the University of Manitoba, from the Subarctic to the Antarctic.

AN ILLUSTRATED HISTORY OF WESTERN CANADA

By Tony Cashman. Hurtig, Edmonton, 1971. 272 pages. $12.95

Reviewed by Hartwell Bowsfield

Cashman's book we are told is a 'unique and colourful addition to the literature of western Canada – a lively history of the four western provinces written especially for the young-adult'. Unfortunately the publication falls far short of this claim whether as history or illustration for it is not only bad and poorly written history but far from distinguished in its use of illustration.

On the positive side one must admit that it is inclusive – it covers all the western provinces and it embraces everything in western history from geological eruptions to singer Joni Mitchell and John G. Diefenbaker. On the positive side also it overflows with information on western Canada, *e.g.* 'In 1967, while the rest of Canada was marking the centennial, the [apple] growers [of British Columbia] had something of their own to celebrate. They shipped seven million tins of apple juice, and made western Canada the world's second consumer of apple juice, at seven and three-quarter pounds per head. Only the Swiss drink more.'

The celebrations of the B.C. apple growers epitomize what is the major defect in Cashman's work. Enthusiasm and pride in one's community are admirable virtues but when they produce history in terms of Chamber of Commerce boosterism which reads like releases from a provincial department of Industry and Commerce or the Tourist Bureau the result is a disservice to the story of the Canadian west. Cashman in short has indulged in parochial chest-thumping. His work is the product of a public relations man not a historian.

Cashman travels the traditional route of western history from the ice age to 'furtraders' and 'graingrowers' (*his* spelling). Hence there is everything from geological time (accompanied by one of Emily Carr's poorer paintings) to Henry Kelsey the explorer (represented pictorially by a photograph of the six-cent stamp issued by the Canadian post office!) and on down to the chuck-wagon culture of the present day. Here also is Colin Robertson, the fur trader, whose activities 'would have provided enough action to fill a twenty-seven inch television screen', and Mart Kenney and his Western Gentlemen whose theme song became 'a sort of national anthem', and the Consumers Cooperative Refineries Limited, the world's first co-operative oil refinery. Here is Lord Selkirk, Louis Riel, and Tilly Rolston, the first woman cabinet minister in Canada with responsibility for a portfolio, and the hundred million dollars B.C. loaned to Quebec to help finance Expo!

Amid such boosterisms as the west's contribution to medicine (something to do with parathyroid deficiency), the superiority of western war aces, gophers 'multiplying like mad', and revolutions in the apple-crating and salmon-canning industries, the basic history of the west is distorted by misinformation. Let the following serve as examples: '[The métis] had their own provisional government (formed in 1844) which was a true democracy', and, 'In 1958 Manitoba abandoned thirty-six years of coalition government and elected a Conservative administration headed by Duff Roblin'. This latter bit of information seems a rather cavalier dismissal from the pages of Manitoba history of Douglas Campbell, *Liberal* Premier of Manitoba 1948-1958.

Cashman presumably wishes to be taken seriously as a historian. Why else would he introduce the theories of Henry George and the single tax which 'seemed made to order for British Columbia' and forced, we are told, 'reforms in the system of handing out the public lands and forests'. Why Henry George is important to B.C. or what the reforms were is never explained. No serious historian would weep with boredom at the mention of the Manitoba School Question and no serious writer would use such expressions as that Protestant Ontario was delighted to see Catholicism and the French language 'get clobbered'.

The less said about the uninspiring illustrations the better. As for illustrating western Canadian history – thank goodness for *The Beaver.*

The index is hopelessly inadequate. Cashman's spelling is wrong and inconsistent, *e.g.,* Assinaboine river, Camp Shiloh, Wolsey expedition, Carleton Trail, Fort MacLeod and Fort Macleod, Esquimalt and Esquimault. Some careful editorial supervision was needed here.

How sad that Mel Hurtig, the publisher, who is turning out such fine

reprints of western history should be associated with such a disfigured picture of western Canada.

Mr Bowsfield, lecturer in history and archivist at York University, served previously for fifteen years as provincial archivist for Manitoba.

THE WHITE DAWN

An Eskimo Saga

By James Houston. Jovanovich, New York; Longmans, Toronto, 1971. 275 pages. $7.95

Reviewed by Malvina Bolus

Travellers to the north produce many books which purport to tell the reader all about the Eskimos, their culture and way of life. Houston's book is called a novel. It is easy to read, a good story in itself and, written by a perceptive man who has lived in the Arctic and knows the Eskimos, it gives a deeper insight into their culture than many an anthropological study.

Read it for the different viewpoint it presents—the Eskimo looking at the invader. It is probable that only an Eskimo knows what is in the Eskimo mind but Houston seems convincing when, transforming himself into Avinga, he tells the tale. Avinga, crippled by mauling dogs, spends much time with the women so is familiar with aspects of daily life that would be unnoticed by a hunter. Through him are revealed the uncouth ways of the three marooned whalers whose lives have been saved by this band of Eskimos. The viciousness of their games, their greed, their willingness to be fed and clothed (and bedded) without making recompense are horrifying to the Eskimos; ultimately their defiance of the camp leader forces him to withdraw, for loss of control is more devastating than any physical challenge. Disintegration of the leaderless camp, introduction of alcohol, malevolence of a shaman lead to the final tragedy.

Throughout there are fine descriptions of arctic life of the late 19th century, from spring collecting of birds' eggs to the times of hunger when kayakmen 'slept until their teeth grew furry'; the scenting of the coming of the walrus and the thrilling successful hunt; the excitement of the big dance and the feast for visitors.

In times of scarcity the whalers became nervous for 'they did not know that if you live a good life of sharing, somehow you will be provided with food'. The principle of sharing as opposed to personal acquisition is still one of the divisions of thought between the original Canadians and the later comers.

There is no moral. It is a powerful and convincing story of the inevitable, the first brush between two cultures. The reader can arrive at his own conclusions.

James Houston's small chapter-end drawings enhance the book.

Miss Bolus is editor of 'The Beaver'.

PORTRAITS FROM THE PLAINS

By J. W. Grant MacEwan. McGraw-Hill, Toronto, 1971. 287 pages, illus. $7.95.

Reviewed by Chris Vickers

George F. G. Stanley, a leading authority on the history of the Canadian West, said that Big Bear was '. . . one of the great Indians of Canadian history'. In this book you will find an excellent brief biography of the famous Cree chief, and thirty-two additional sketches of western Indians who played an important part in the development of the prairie country. The author, Lieutenant-Governor of Alberta, states bluntly that 'Canadian Indians invite study'. His study of the famous Indians has been thorough, and the result should be that all who read his book will have a better understanding of our native people.

Mr MacEwan has the ability to banish prejudices; he proves beyond any doubt that these Indian leaders were great warriors, leaders, orators, philosophers, athletes, artists, and above all 'great gentlemen'. Just read his biography of Crowfoot, the famous Blackfoot chief, and you will discover wisdom seldom matched by Europeans. Then turn to his sketch of Piapot, the Cree chief who had the common sense to keep his band neutral during the rebellion of 1885, and who, when told by a missionary that he would sizzle in Hell if he did not become a Christian, replied: 'You talk like a child but you cannot scare me. Nobody will find the Great Spirit through fear.'

I found the sketch of Bull Head, a war chief of the Sarcee, entertaining, revealing the man who caused the Mounted Police much trouble and who was said by them to be 'a notorious old rascal'. Today, looking back on his long fight for Indian rights, we forget that word 'rascal' and see only a man who was a robust individual and wise. And for a famous hunter you should read the story of Carry-The-Kettle, the Assiniboine who was an expert in driving the buffalo into pounds.

Some of the names you will discover in this book may be new, unknown to the average reader of western history, yet they all played a role in our western story. Just look at the forty-two photographs that enhance the value of this book and you discover a portrait gallery of strong men. Perhaps some of them did fight us, but they were only defending their own rights, just as the British islanders have done for more than a thousand years.

Retired newspaper editor, Mr Vickers maintains his interest in anthropology, archaeology, and western history.

AN INDIAN REMEMBERS

By Tom Boulanger. Peguis Publishers, Winnipeg, 1971. 85 pages. Illus. $4.95

Reviewed by
Helen Burgess, assistant editor

After fifty years of trapping in the wilderness of northern Manitoba, Tom Boulanger, an Indian from Oxford House has written his memoirs.

His 'news' from over the years is set down as it comes to mind, without time sequence and coloured by a philosophy of life that falls between superstition and a high regard for education and the Christian religion. His mother learned the secrets of her skill with Indian medicine in a dream; dreams guided him to a den of bears, and his starving friend, to a herd of caribou. When the body of a trapper was eaten by bears before a burial service could be held, the author reflects, 'he told me a lot of times he didn't believe in God. I guess that's why he died like that.'

The manuscript came through the Venerable Adam Cuthand, to Mary Scorer of Winnipeg who published it with a minimum of editorial change. It is a warm and simple account of a way of life that is becoming a part of history. The illustrations are family photographs and sketches by Edward Howorth.

Reviews continue on page 63.

WEAVING IN THE ARCTIC

By Donald Stuart

Graduate of the Ontario College of Art, Donald Stuart in 1969 joined the weaving project that is sponsored by the Government of the Northwest Territories.

IN THE TINY HAMLET of Pangnirtung on Baffin Island a weaving industry is thriving. Eskimo women, working a forty-hour week, weave a colourful variety of sashes, scarves, blankets, and tapestries.

The idea was born three years ago as an occupational scheme. The government arranged with Karen Bulow Ltd., the largest hand-weaving company in Canada, to be consultants, and gave me the opportunity to teach and manage the project. We set forth on an exciting path,

Hand-loomed scarves are worn by three girls at Pangnirtung. left, Peeah Naulalik, Atsinaq Kakkik, and Salia Kakkik, who weave in the craft shop (lower left). Above, Leesee Arnaquq finishes a tapestry, watched by her daughter Rosie. In the background are completed scarves.

not sure where it would lead. The first months of planning were varied. We had to develop products that would be logical for the Eskimos to make and that would have wide appeal. Having decided on some basic ideas for woven articles, suitable material had to be provided. Wool was most appropriate and the quality desired was eventually found in Canada, in Sweden, and in the fine mountain sheep wool from Iceland.

Finally, on a drizzly February day two years ago, I set out from Montreal delighted at the prospect of experiencing the Eskimo way of life and possibly making a useful contribution. A week in Frobisher Bay did not seem like the Arctic – a place with the complacency of a small town but the bustle and drive of a city, with gaudy frame houses, road signs, and street lights. Then I was on my way to Pangnirtung – making reality of a dream. Magnificent craggy mountains soar above the tiny hamlet of 700 people nestled at the edge of a fiord emptying into Cumberland Sound. Here, near the Arctic Circle, summer brings twenty-four hours of light, and winter cold but clear dark days.

The people had never seen a loom before and had no idea what could be done with it. Teaching began with three girls making sashes or belts, for finger-weaving of sashes is a traditional craft. From this they went on to scarves, ties, rugs, blankets, and parka braid. Their quickness and skill were astonishing for within a month they had learnt as much as I hoped they would in six months. There are now ten girls weaving and they themselves design the articles, choose the colours, and set up the looms. Their inherent skill in use of colour and design is such that one must be careful not to influence it but just show how it can be used to best advantage by giving technical advice.

The girls are all relatively young, from nineteen to twenty-four, which is ideal. Younger than that they are in school, older they need to spend time with their families. Strangely only three of the ten girls have ever been in school, the others having come to Pangnirtung when their families moved in from surrounding camps. They take pride in their work, which is unique in the North – the first loom weaving ever done. And they are industrious for though the working day is 9 to 5 o'clock, the evenings will often find some at work, singing as they weave. The craft shop is a very sociable place.

After the articles are woven they are given to the older women in town to tie the fringes. They are then brought back to the shop where they are washed, brushed, and have the labels sewn on. Then they are inspected, tagged with weaver's name, and are ready for shipping.

The 'weavery' occupies the old government craft shop. One room contains the looms, varying in size from 27 inches to 60 inches, with flying shuttle. Other rooms have table space for designing and brushing, the warping mill and wool storage.

The project has had its share of growing pains and excitement when special orders were received. In 1970 there was a commission from the Northwest Territories

Olassie Akulukjuk, one of the two weavers at the opening of the tapestry exhibition in Montreal. Behind her are two tapestries designed by Malaya, 'Creature' woven by Salia Kakkik and 'Drum Dancer' woven by Peeah Naulalik.

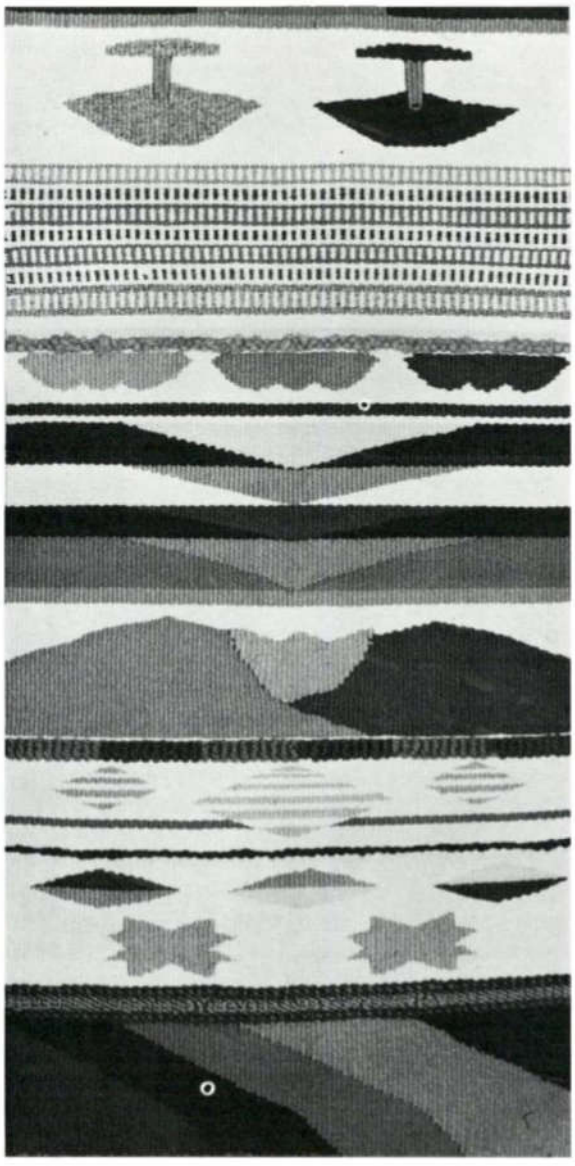
government for almost 600 sashes for the Boy Scouts to wear at the Northern Scout Jamboree in Churchill. Special presentation sashes were also made for distinguished visitors including the Queen, Princess Anne, Prince Philip, and Prince Charles. Her Majesty was so delighted by a gift she shared with the Scouts that she had the sashes put in the car to take home herself.

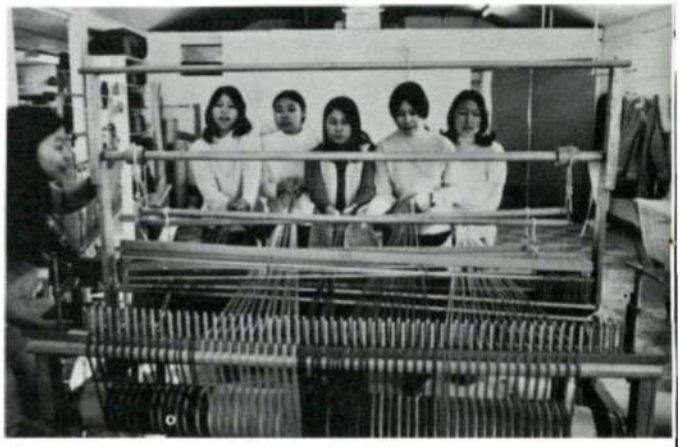
When she visited Frobisher Bay, the Queen was presented with the first blanket woven as a gift from the people of Pangnirtung. The presentation was made by the 'grand old gentleman' of Pang, Jim Kilabuk.

Many other visitors have been amazed and impressed to see the weaving done at Pangnirtung.

The most recent development has been the weaving of tapestries. Enough had been made by this spring to hold an exhibition at the Canadian Guild of Crafts in Montreal. It was received with great enthusiasm. That such an achievement with the use of a new technique in the field of creative art had been accomplished in so short a time was a source of wonder and admiration.

Tapestry 'Pangnirtung', 61 by 28 inches, designed and woven by Peeah Naulalik.





Setting up blanket loom: Leesee Arnaquq, Meeka Akpalialuk, Oleepa Pappatsie, Atsinaq Kakkik, Peeah Naulalik, Olassie Akulukjuk.

In discussing the thought that a transplanted medium might not be in harmony with an established culture, an observer after viewing the exhibition wrote in the *Montreal Star*: 'Judging from these first tapestries, the clearly delineated Eskimo artistic forms maintain their essential quality and the technique in no way seems to threaten it with changes deriving from the medium itself . . . . the technique of weaving tapestries is simply the latest vehicle for Eskimo expression.'

This exhibition showed the evolution of the tapestries from the initial geometric hangings through scenes depicting Eskimo life to dramatic pure design. Local artists submit designs which are turned over to the weavers to be interpreted with colour as tapestries. Recognition of the importance of this work was evident in the fact that the majority of tapestries exhibited, all of which were quickly sold, were purchased by museums or for permanent collections.

The remarkable success of this weaving program has been made possible by the enthusiasm and adaptability of the weavers, encouraged by the stimulation of the Karen Bulow advisers and the keen interest of Miss Virginia Watt of the Canadian Guild of Crafts.

Beautiful Pangnirtung can proudly claim to be the weaving centre of the Arctic. ◆

Logo of the weavers is adaptation by Don Stuart of ivory birds used in playing a game similar to dice.

PANGNIRTUNG

ARCTIC FEVER

By Doug Wilkinson, Clarke Irwin Toronto, 1972. 154 pages, $6.50

Reviewed by A. Stevenson

My first reaction to *Arctic Fever* was 'What? Another book on early Arctic expeditions and the search for the Northwest Passage?' This has been the subject of numerous books, some written by members of expeditions, others by historians and still others by armchair enthusiasts who have rehashed and sometimes carefully researched original material. I could not find anything new in *Arctic Fever*, but I did enjoy the author's easy-to-read interesting variation on the familiar theme.

Author Doug Wilkinson enters significant areas of the Arctic environment by jet or his own aircraft and skilfully brings past scenes to life using quotes from early journals, diaries, and letters. The four key figures are Frobisher, Hearne, Parry, and Franklin.

There is no detailed bibliography in the book but footnotes reflect some of the sources used by the author. The chapters are short, and the accounts brief, the whole book being only 154 pages including the prologue, epilogue, and index. It is illustrated by sixteen pages of black and white photographs (some of them of early sketches) and a map.

The author first went to the Arctic early in 1946 to film the military exercise 'Muskox' for the National Film Board. He was gripped by 'Arctic Fever' and returned to document the passing of the old Eskimo way of life. This was followed by more than a year in the Pond Inlet area of Northern Baffin Island with an outstanding Eskimo, Idlout, and his family. Wilkinson's experiences with this family were told in his book *Land of the Long Day* and subsequently in *Sons of the Arctic*. Late in 1954 he joined the recently formed Department of Northern Affairs and National Resources. As one of the first of six Northern Service Officers he was sent North to work with the Eskimo people and to help in the carrying out of programs and responsibilities of the Department. During this period he obtained his pilot's licence and again turned to film producing and writing.

Another Pangnirtung tapestry 'Two Headed Bird' 44½ inches wide, designed by Malaya Akulukjuk who is a shaman, and woven by Peeah Naulalik.

Photo courtesy Canadian Guild of Crafts.

Although he spends his summers in Kirk's Ferry, Quebec, he and his family go to their Yellowknife home each winter where he works in his dual role of film maker and writer. His latest book can hardly be considered a definitive work on the search for the Northwest Passage but with the author's ability to write and his knowledge and interest in the North, it may lead to further in-depth research, resulting in even more significant contributions to the literature of the Canadian Arctic.

Alex Stevenson is Chairman of the Northwest Territories Historical Advisory Board.

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POSTSCRIPT

It has been my privilege, pleasure, frustration, and satisfaction to edit *The Beaver* for the past fourteen years. Through the support of the Hudson's Bay Company, which publishes the magazine, it has been possible to provide articles on a great variety of subjects, from knowledgeable writers, illustrated with old and new prints, drawings, and paintings, and the best of modern photography.

I feel a warm friendship with our readers, so many of whom have encouraged our efforts, and a deep gratitude to our contributors, who have taken endless trouble to satisfy our insistence on accuracy and freedom from technical jargon, which is no easy task for a scholar.

Archivists, librarians, artists, administrators, printers, professors, curators, craftsmen, and countless others have all proved courteous and helpful in spite of the occasional crisis that erupts with any publication. Stimulation and inspiration have come from many sources for no matter what one is doing the magazine is always in the back of an editor's mind.

It is with real sadness that I retire from what has been an absorbing and rewarding way of life, and with this issue say thank you and farewell.

Malvina Bolus, SM

The master of the Nonsuch ketch invites you to enjoy the favourite Scotch of the new adventurers.

Three centuries ago the original Nonsuch made a trading voyage to the new world. The success of this venture led to the creation of "The Governor and Company of Adventurers of England trading into Hudson's Bay".

In 1970 a new Nonsuch, with a crew of new adventurers, sails again in North American waters.

In three hundred years the little Company of Adventurers has grown into a huge modern marketing complex by never hesitating to venture round the world to bring the best in style, quality and value to its North American customers. Our growth marks the success of that policy.

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